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index, trade figures and labour market data,
as well as the periodic census of the popula-
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Economic Trends

No. 625, December 2005

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in brief

At a glance – economic summaries recently released on the National Statistics website.

GDP growth

Quarterly growth (per cent)
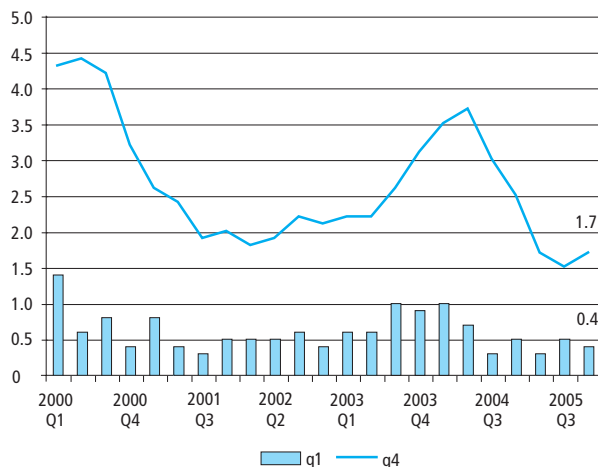
Growth in the third quarter of 2005 is driven by a rise of 0.6 per cent in the service sector, with strength within the business services and finance, government and other, and transport and communication sectors.

Manufacturing output increased by 0.4 per cent in the third quarter, with the largest growths in the output of the transport equipment and chemicals and man-made fibre industries.

Construction output rose by 0.5 per cent in the third quarter.

Household expenditure rose by 0.5 per cent, following 0.4 per cent growth in the second quarter of 2005. Growth in the third quarter of 2005 is driven by growth in expenditure on goods.

Government final consumption expenditure rose by 0.3 per cent in the third quarter and is now 1.6 per cent above the level seen in the third quarter of 2004.

Exports rose by 0.7 per cent over the third quarter, within which exports of goods rose by 1.4 per cent and exports of services fell by 0.7 per cent. Imports rose by 2.1 per cent as imports of goods rose by 3.3 per cent and imports of services fell by 1.8 per cent.

Compensation of employees, measured at current prices, rose by 1.1 per cent and the operating surplus of corporations fell by 0.5 per cent.

Released: 25 November 2005

Index of production

Index of manufacturing, 2002=100

Manufacturing output increased by 0.4 per cent in the third quarter of 2005 compared with the second quarter, with six out of the thirteen subsectors showing increases in output and seven showing decreases.

There were significant increases in output in the transport equipment industries, where output increased by 3.0 per cent, and in the chemicals and man-made fibres industries, where output increased by 1.8 per cent. There were no significant decreases in output in the quarter.

Overall production output decreased by 0.6 per cent in the third quarter of 2005. Within production the 0.4 per cent increase in manufacturing output was offset by decreases of 0.8 per cent in the energy supply sector and 7.7 per cent in the mining and quarrying sector. The decrease in mining and quarrying output was mainly due to annual routine maintenance in the oil and gas extraction industries. This maintenance, while expected, has reduced output slightly more than in previous years, and is entirely within quarter three this year. In 2004 the maintenance was delayed and so affected both quarter three and the early part of quarter four.

Between August and September, manufacturing output decreased by 0.3 per cent, with output falling in nine of the thirteen subsectors and rising in just four subsectors. The only significant decrease was in the chemicals and man-made fibres industries (1.6 per cent). There were no significant increases this month.

The overall Index of Production increased by 0.5 per cent between August and September. Mining and quarrying output increased by 6.8 per cent, with a recovery in output following the maintenance work which had reduced oil and gas extraction output in August. Energy supply output increased by 1.4 per cent in September with significant increases in both electricity and gas supply.
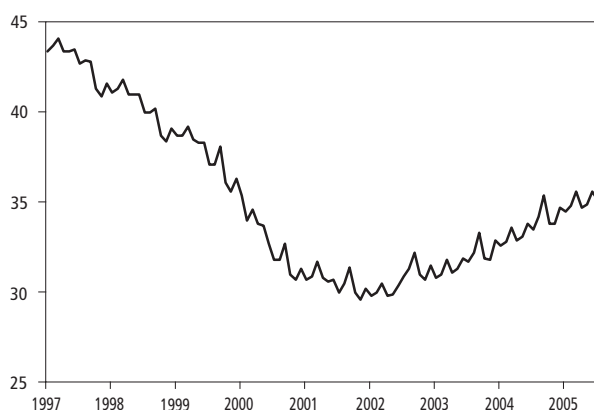
Released: 7 November 2005

Public sector

Cumulative public sector surplus on current budget

£ billion
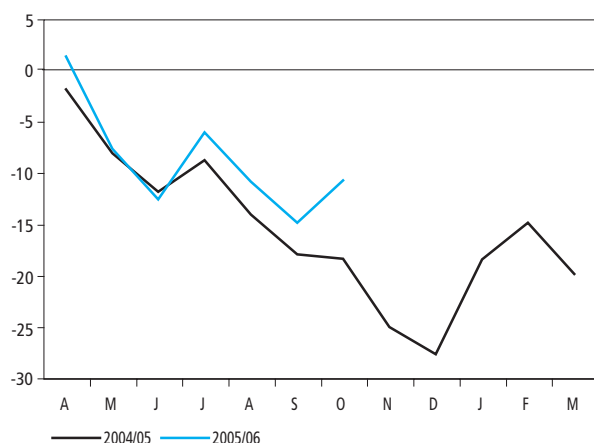
Net debt (as a percentage of GDP)

In October 2005 the public sector showed a surplus on current budget of £4.1 billion, compared with a deficit of £0.4 billion in October 2004.

Concentrating on one month in isolation can give a distorted picture as movements can be erratic. Focusing on the financial year to date generally provides a better overview. Between April and October of the financial year 2005/6, the public sector recorded a deficit of £10.8 billion. At the same stage of the 2004/5 financial year a deficit of £18.4 billion had been recorded.

More generally the public sector recorded deficits between 1991/2 and 1997/8 before moving into surplus in 1998/9. Since 2002/3 deficits have been recorded.

An alternative measure of the public sector fiscal position is public sector net borrowing. This additionally takes account of capital investment. In October 2005 there was net borrowing of £-2.2 billion, which compares with £1.7 billion in October 2004. The Budget Report forecast for 2005/6 is net borrowing of £31.9 billion.

Public sector net debt, expressed as a percentage of gross domestic product (GDP), was 35.0 per cent at the end of October, compared with 33.4 per cent at end of October 2004. Debt peaked at 44.0 per cent of GDP in 1997, its highest since the mid 1980s. The debt ratio then fell steadily as public sector finances improved, reaching a low of 29.5 per cent in February 2002. Since then it has risen. The Budget Report forecast for the end of March 2006 is 35.5 per cent.

Net debt was £435.9 billion at the end of October, compared with £394.5 billion a year earlier. The Budget Report 2005 forecast net debt at the end of March 2006 is £452.0 billion.

Released: 18 November 2005

Natural resource and products use in the economy

Index 1990=100
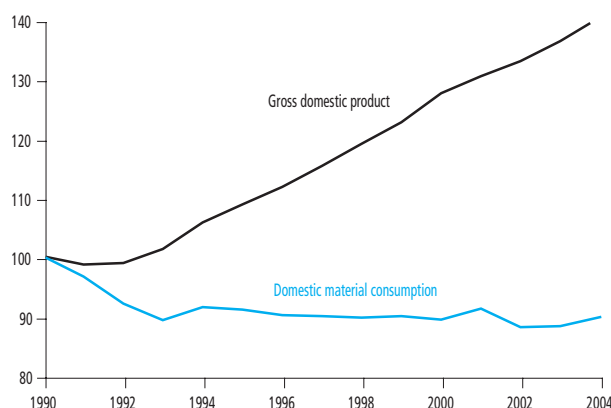
The mass of natural resources and products used by the UK economy in 2004 rose by 11 million tonnes (1.6 per cent) to 693 million tonnes. The rise was driven by a greater deficit on the physical trade balance, which increased by 36 million tonnes to net imports of 89 million tonnes, as the mass of imports rose and the mass of exports fell. The rise in the deficit on the physical trade balance was partly offset by a 24 million tonne fall in the level of domestic extraction.

UK material consumption (domestic material consumption), amounted to 693 million tonnes in 2004 compared with 682 million tonnes in 2003 and 680 million tonnes in 2002. Recent rises in domestic material consumption are associated with the increasing mass of imports, which reached a record 273 million tonnes in 2004, an increase of 33 million tonnes (13.8 per cent) on the previous year. This is due to large increases in fossil fuel imports which, at 127 million tonnes, are at their highest level since 1974. In 2004, the mass of exports fell 1.6 per cent year on year due to lower exports of fossil fuels. Total exports amounted to 184 million tonnes compared with 187 million tonnes in 2003, as exports of fossil fuels fell to 98 million tonnes compared with 103 million tonnes in 2003.

Domestic extraction declined as a result of lower levels of extraction of North Sea oil and gas, which both fell approximately 10 per cent compared with the previous year.

The material productivity of the UK economy continues to rise suggesting domestic material consumption and economic growth have decoupled since 1990.

Released: 21 November 2005

Summaries on other economic topics as well as social subjects can be found at www.statistics.gov.uk/glance

Economic update
December 2005

Anis Chowdhury
Office for National Statistics

Overview

- The GDP growth in the third quarter of 2005 was 0.4 per cent, unchanged from the preliminary estimate and lower than the 0.5 per cent growth in the previous quarter.

- The slowdown in the growth rate was due to a decrease in industrial production. Manufacturing output rose but was partially offset by a sharp fall in mining and quarrying. Construction grew at a lower rate than the previous quarter. Services industries output grew at the same rate in the previous quarter, and continues to lead UK growth.

- Consumer spending remains subdued. It rose by 0.5 per cent in the third quarter, up from 0.4 per cent in the previous quarter. Retail sales increased marginally lower in quarter three after a pick up in quarter two.

- Total fixed business investment rose by 0.3 per cent in quarter three following growth of 1.5 per cent in 2005 quarter two.

- Government spending slowed in 2005 quarter three. It rose by 0.3 per cent compared to 0.5 per cent growth in quarter two but public sector finances showed an improvement last month.

- Labour market conditions show signs of stabilising after softening in recent months. The employment rate increased slightly whilst the unemployment rate remained unchanged in the three months to September. The claimant count increased for the ninth month running. Average earnings growth including bonuses fell, whilst average earnings growth excluding bonuses remained unchanged from the previous month.

- Producer annual output and input price inflation slowed in October.

- Consumer price inflation decreased in October, but still continues to exceed the Government's 2 per cent target.

GDP activity – overview

The GDP growth for the third quarter of 2005 is estimated to have grown by 0.4 per cent, unchanged from the preliminary estimate, after the release of the national accounts figures for that quarter. This is a slight deceleration from the 0.5 per cent growth in 2005 quarter two. The annual rate of growth rose to 1.7 per cent from 1.6 per cent in the previous quarter. This latest release contains more information than that contained in the preliminary one. It gives first estimates for the main expenditure categories and more complete information on the output side. It is still however, based on as yet incomplete information (Figure 1).

Preliminary data for 2005 quarter three are available for the other major OECD economies and shows a mixed picture of the world economy. US GDP growth for the third quarter of 2005 recorded an expansion of 0.9 per cent, up slightly from the previous quarter growth rate of 0.8 per cent.

Figure 1
GDP

Growth
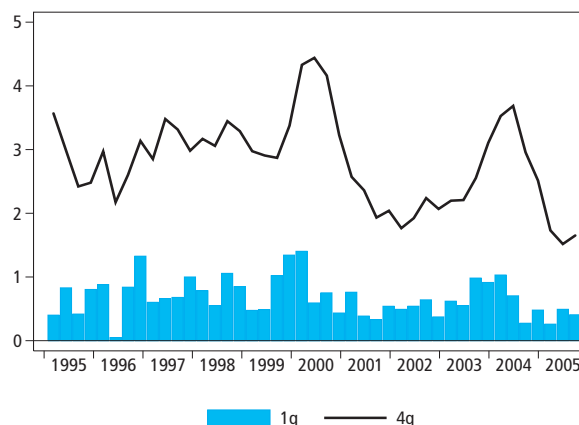
Household demand continues to be a major contributor to GDP growth. The acceleration in the third quarter primarily reflected increases in personal consumption expenditure and federal government spending as well as a smaller decrease in private inventory investment. This was partially offset by a deceleration in exports and residential fixed investment. Japan's output slowed markedly in 2005 quarter three but still shows modest growth. Growth was 0.4 per cent compared to 0.8 per cent in 2005 quarter two. The deceleration was partly due to a slowdown in household consumption expenditure and partly due to a sharp decrease in corporate investment. There was also a negative contribution from net exports. This was partially offset by an increase in private residential investment. Government expenditure remained flat compared to the previous quarter.

Growth in the three biggest mainland EU economies – France, Germany and Italy – shows a mixed picture. Growth overall however, remains subdued. German GDP growth was 0.6 per cent in 2005 quarter three following growth of 0.2 per cent in the previous quarter. The main postive contribution came from net exports, with exports rising strongly on the quarter. There was also a strong rise in corporate investment, particularly in machinery and equipment. According to business surveys, this reflects increasing optimism of industry. On the downside, household consumption expenditure continues to make a negative contribution to growth, decreasing for the third successive quarter. This partly reflects the flat growth in nominal disposable income and is partly due to the relatively weak labour market. France GDP growth showed a sharp rebound in 2005 quarter three. Growth was 0.7 per cent, compared to the 0.1 per cent growth rate in 2005 quarter two. The marked increase was mainly due to a sharp rise in household final consumption expenditure and a rise in corporate investment. Net exports also made a positive contribution to growth for the first time in two years. Italy, in contrast, recorded a much lower growth rate of 0.3 per cent following growth of 0.7 per cent in the previous quarter. Industrial output was the main contributor to the growth rate. Services output was flat whilst agricultural output continues to remain weak.

Financial Market activity

Equity performance has been positive this year on the whole, although stock prices have been volatile. The FTSE All - Share index was up by about 0.2 per cent in 2005 quarter two having risen by 5 per cent in the previous quarter. In 2005 quarter three, the index grew further, to around 7 per cent. The encouraging stock market performance in the latest quarter, may partly be a reflection of the increased profitability of blue chip companies, particularly those exposed to non-UK markets and is partly due to the increased merger activity in quarter three.

As for currency markets, 2005 quarter two saw sterling's average value depreciate by 1.8 per cent against the dollar while against the euro, sterling's value appreciated by around 2 per cent. In 2005 quarter three, sterling's value against the dollar depreciated by around a further 4 per cent whilst against the euro, it depreciated by around 1.0 per cent. Overall, the quarterly effective exchange rate decreased by 1.3

per cent following a rise of 1.4 per cent in the previous quarter (Figure 2). At the time of writing this article the dollar/pound rate was 1.72 while the rate was 1.46 against the euro.

The recent movements in the exchange rate might be linked to a number of factors. The depreciation against the euro and the dollar in the latest quarter may be due to expectations that the Bank of England may keep interest rates unchanged for a prolonged period or even cut them due to lower growth and lower inflation projections. This coincides with expectations of interest rate rises in the euro area. The recent hikes in interest rates in the US may have contributed to the rebound in the dollar. In the UK, interest rates were lowered in August 2005 by 0.25 per cent to stand at 4.50 per cent but are still well above the rate in the euro zone and slightly above the rate in the US, where the rate currently stands at 4.00 per cent. The depreciation of sterling against the dollar also partly reflects the strength of the US economy relative to the UK economy.

Figure 2
Exchange rates

£ equals

£/$ (lhs)   £/euro (lhs)   Effective rate (rhs)
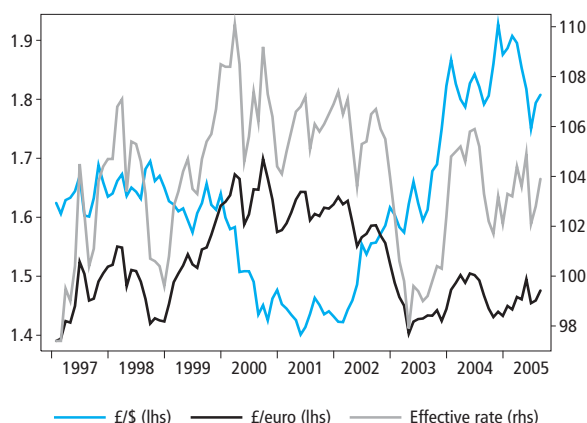
Output

GDP growth in 2005 quarter three is estimated to be 0.4 per cent, unchanged from the preliminary estimate. On an annual basis, it was 1.7 per cent, up from 1.6 per cent in 2005 quarter two. It is worth noting here that these estimates are based on partial information, which will be augmented later to produce the final GDP estimation for 2005 quarter three.

According to the 2005 quarter three GDP figures, the growth rate of 0.4 per cent in the UK economy was due to a combination of factors. Industrial production fell. Construction output grew at slower rate than the previous quarter. Service sector output however remains robust and continues to lead economic growth.

Construction is estimated to have grown by 0.5 per cent following 0.6 percent growth in the previous quarter (Figure 3). As for external surveys of construction, the CIPS survey signalled a marginal increase in the rate of growth of the construction sector in the third quarter. The headline index was 56.4 compared to 54.4 in the previous quarter. There was a slight improvement in commercial as well as housing activity which was offset by slowdown in civil engineering. Business optimism however decreased over the

quarter. According to the latest figures available, the CIPS survey report a slowdown in the rate of expansion in the construction sector. The headline index was 53.9, down from 57.2 in September. This was mainly due to a weakening in the rate of increase in new orders.

Figure 3
Construction output

Growth

| | 1q | | 4q |
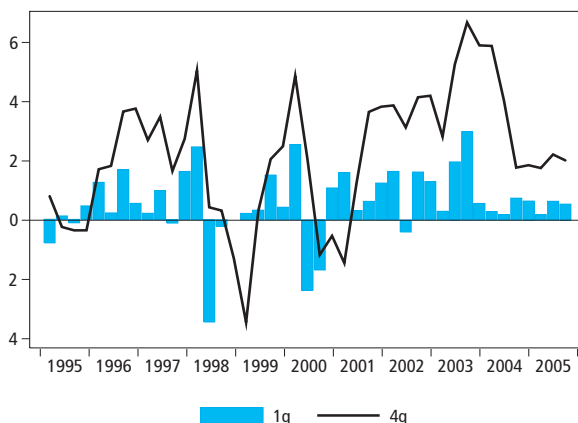
The RICS third quarter construction survey shows a similar pattern to the CIPS survey. The RICS construction survey reports that construction workloads pick up slightly in the third quarter. Total workloads was 17 per cent in quarter three, up from 15 per cent in quarter two. The private housing sector saw the largest increase. There was also an increase in commercial activity but at a lower rate due to a slowdown in business demand for commercial property. Confidence over the next year remains high.

Total output from the production industries fell by 0.6 in 2005 quarter three, compared to flat growth in 2005 quarter two. The main contribution to the decrease came from mining and quarrying (including oil & gas extraction) which fell by 7.7 per cent following growth of 0.3 per cent in the previous quarter, due largely to an extended maintenance shutdown in the North Sea. Within industrial production, there was a fall in the output of the electricity, gas and water supply industries of 0.8 per cent compared to growth of 1.0 per cent in 2005 quarter two. Manufacturing output rose by 0.4 per cent, after recording a fall of 0.2 per cent in 2005 quarter two (Figure 4). It is worth noting that production growth in the mining and quarrying industries and electricity, gas and water supply industries has been volatile in recent quarters. Agriculture, forestry and fishing fell by 0.5 per cent following growth of 1.1 per cent in 2005 quarter two.

Figure 4
Manufacturing output

Growth

| | 3mth on 3mth | | 3mth on year ago |
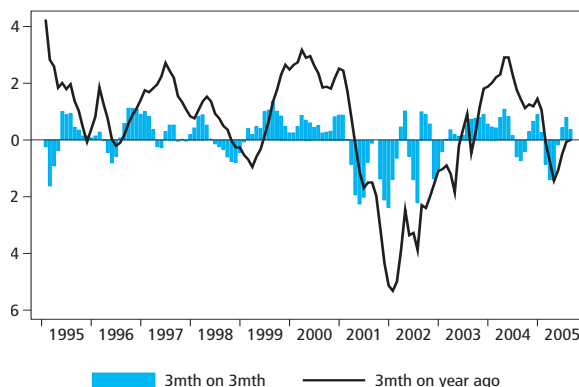
External surveys of manufacturing for 2005 quarter three (Figure 5) show a mixed picture for growth than in the previous quarter. The gap between external surveys and official data has narrowed recently as the external surveys have become more pessimistic. It is worth noting that it is not unusual for the path of business indicators and official data to diverge over the short term. These differences happen partly because the series are not measuring exactly the same thing. External surveys measure the direction rather than the magnitude of a change in output and often enquire into expectations rather than actual activity.

Figure 5
External manufacturing

Balances

| | BCC (lhs) | | CBI (lhs) | | CIPS (rhs) |
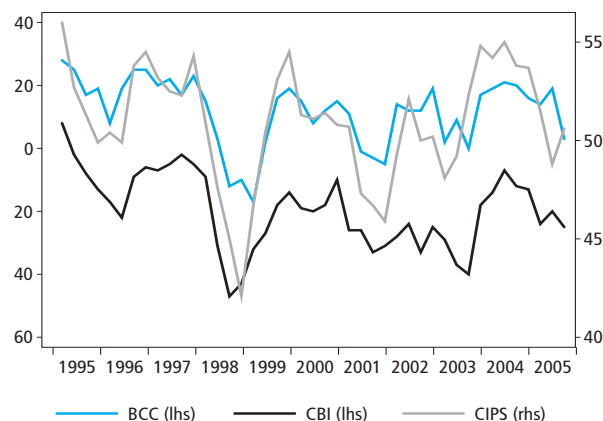
The CIPS headline index for manufacturing signalled an increase in activity in 2005 quarter three. The headline index was 50.5 in 2005 quarter three compared to 48.7 in quarter two. Both the orders and the output indicators followed the same trend as the headline figure. According to the latest figures, there was a further improvement in October. The headline index was 51.7, up slightly from 51.5 in September. This moderate expansion was supported by strong gains in output and new orders. The 2005 quarterly three BCC survey in contrast reports a sharply worsening performance in the manufacturing sector. The survey reports that manufacturing balances for home sales & orders, export sales & orders and key confidence balances fell in quarter three. The CBI also report a weakening manufacturing performance in 2005

quarter three. The CBI in the quarter three industrial trends survey report that the balance for total orders was minus 25, a further decrease from the minus 20 reported at the end of quarter two. The export balance and deliveries shows a similar trend. The CBI attribute the weakness to consumer caution. According to the latest monthly industrial trends survey, the CBI report a continued weakness in manufacturing performance. The balance was minus 25, unchanged from the previous quarter. Total order books remained unchanged, reflecting weak domestic demand. However, there was an improvement in export order books.

Overall, the service sector, by far the largest part of the UK economy and the main driver of UK growth recently, continues to grow but at a rate of 0.6 per cent, unchanged from the previous quarter. Within the sector, components to the growth rate appear broad based with financial and business services making a major contribution (Figure 6).

Figure 6
Services output

Growth
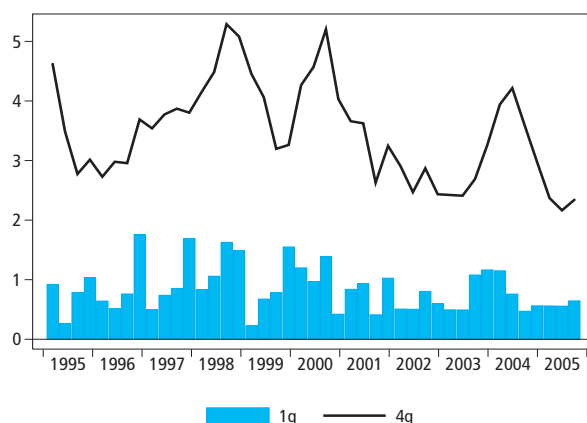
The Index of Distribution is a monthly series reporting the output of the distribution industries – which constitute approximately one-fifth of the total Index of Services. According to the latest release, the distribution of output in the three months to September rose by 0.5 per cent compared with the three months to June. Wholesaling output increased by 0.8 per cent. The most significant increases were in clothing and footwear. Retail output increased by 0.6 per cent. The most significant rise was in non-food stores. This was offset by a decrease in motor trades output which decreased by 0.5 per cent in the three months to September. This was mainly due to the sale of motor vehicles.

The external surveys on services show a somewhat weaker picture of the service sector compared to 2005 quarter two. The CIPS Report on Services indicate a marginal weakening in the headline index in 2005 quarter three, mirroring the trend in official figures, but is still consistent with solid service sector growth. The business activity index was 54.8, down from 57.5 in quarter two. The orders index also fell slightly. However, business confidence remains robust. According to the latest figures available, CIPS report an improvement in service activity growth in October. The headline index was 56.1 compared to 55.0 in September. The increase in the index

was fuelled by new orders. The CBI Survey of Services report that business volume growth slowed further in 2005 quarter three. The slowdown was most pronounced for consumer services firms, although professional services also noted tougher conditions. The BCC report a mixed performance for the service sector. Home sales & orders and employment were up. But export sales & orders, plant & machinery investment and confidence balances all declined in quarter three (Figure 7).

Figure 7
External services

Balances
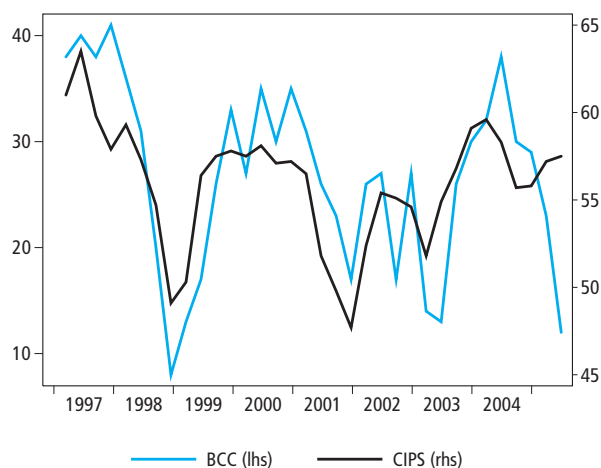
Household demand

Household demand was 0.5 per cent in 2005 quarter three, up from 0.4 per cent in 2005 quarter two. Although this does represent a pick up, it is still subdued when compared to the first two quarters of 2004. Growth compared with the same quarter a year ago was 1.6 per cent, slightly up from the 1.5 per cent growth rate in the previous quarter (Figure 8).

Figure 8
Household demand

Growth
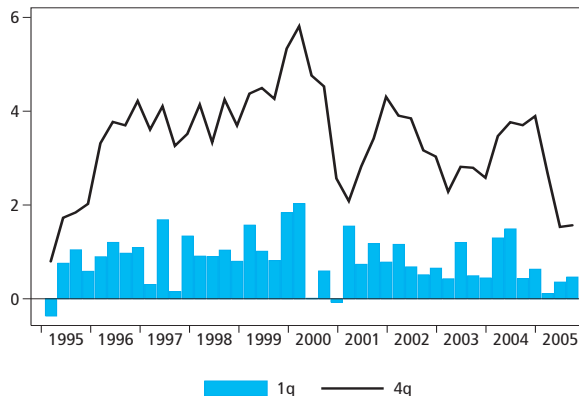
This slowdown can largely be attributed to lower spending on durable and semi-durable goods which includes clothing and footwear.

The relative weakness of consumer spending might be connected to the lagged effect of the three interest rises in the summer of 2004. Indeed reports indicate that saving has increased recently with inflow of funds into savings accounts being at their highest for a number of years. The savings ratio was 5.0 per cent in 2005 quarter two, up from 4.5 per cent in 2005 quarter one. In addition there is little evidence of a sustained recovery from the relatively weak housing market during the first three quarters of 2005.

As household consumption has risen faster than disposable income in recent years the household sector has become a considerable net borrower. It is likely, that due to relatively high debt levels, consumer expenditure growth will be more tied to the growth of personal disposable income in the near future. Also, consumer fears about the possibility of higher taxes in order to plug the supposed hole in the public finances may also have been another factor behind the slowdown. Increasing tax bills in the last couple of years may also explain the consumer slowdown. Higher oil prices could also be contributing to the consumer slowdown by displacing expenditure on certain durable goods.

However, there are some factors that are supportive. The labour market is relativley buoyant, which might generate moderate growth in wages and thus personal disposable income increases. Low unemployment ensures that consumers are not overly concerned about their long-term job prospects, and are therefore less cautious about purchases of big-ticket items. Also, the recovery in equity prices from the beginning of 2005 might be expected to have a positive effect. Finally, the reduction in the repo rate by 0.25 per cent to 4.50 per cent in August 2005 by the Bank of Englands monetary policy committee (MPC) is expected to help support consumer spending.

The GfK index in 2005 quarter three showed a negative balance for the second successive quarter. The balance deteriorated in quarter three to minus three from minus one in quarter two. The drop was driven by declines in the perception of the general economic situation in the last and next twelve months measure. According to the latest figures, the balance was minus 27 in November, an improvement from the minus 32 in October. This was partly driven by an improvement in the index for major purchases measure, partly offset by a decrease in the index for the perception of the general economic situation in the last twelve months. The MORI index shows a similar picture. The MORI average economic optimism index (EOI) was minus 26 in 2005 quarter three down from minus 15 in 2005 quarter two, the largest negative balance since 2003 quarter one. In October there was a slight improvement in the balance to minus 32 from minus 35 in September. According to the latest monthly figures, the balance was minus 8 in November, unchanged from October.

Retail sales figures are published on a monthly basis and the latest available figures are for October 2005 (Figure 9). It should be noted that household consumption accounts for a much broader range of spending than just retail sales. For instance, household purchases of services, motor vehicles, and housing (imputed rents) are not included in retail sales.

Retail sales

Growth
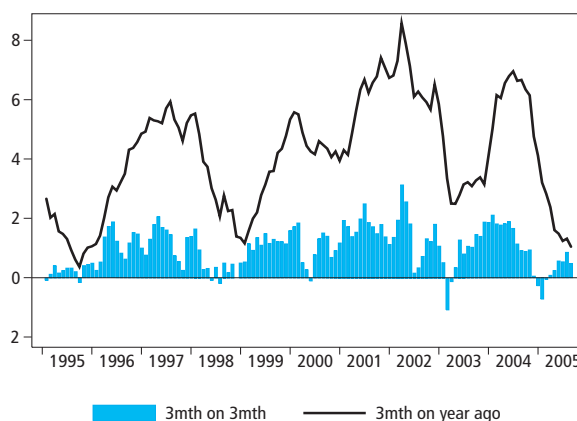
During the final quarter of 2004 the evidence suggests that the growth in retail sales weakened and this seems to have continued in the first quarter of 2005. In 2005 quarter two and three, there are some signs of a modest pick up. According to the latest figures, the volume of retail sales in the three months to October was 0.7 per cent, a higher rate than in the three months to September, when growth was 0.4 per cent. This may partly be an effect of the discounting done by retailers in the latest quarter.

On a monthly basis, total sales volume increased by 0.2 per cent compared to 0.6 per cent in September. Compared with the same period a year ago, sales volume in the three months to October was 1.1 per cent, up from 1.0 per cent in the three months to September, but still a relatively weak underlying rate of growth.

At a dis-aggregated level, during the three months to the end of October, growth in sales volume for food stores was 0.4 per cent compared with 1.2 per cent for non-food stores. Within non-food stores, three-monthly growth was positive for all sectors except clothing stores where growth was flat. The three-monthly growth rate for the non-store sector showed a decrease of 3.1 per cent, reflecting reduced sales by catalogue mail order companies.

External surveys show signs of growth slowing in recent months. The latest CBI monthly Distributive Trades Survey reports that trading conditions remained tough in October. The balance was minus 18, a modest improvement from the minus 24 reported in September. This is in line with the official retail statistics. The CBI survey reports that the hardest hit sectors related to big ticket electrical products, DIY, hardware, furniture and flooring items. The motor trade suffered its worst sales performance since December 1999. The reasons for the negative balance is attributed to concerns over the housing market, the level of interest rates and consumer caution. It is worth noting that the CBI surveys 125 retailers accounting for about half the jobs on the high street whereas ONS surveys 10,000 retailers, including on-line and mail order businesses.

The British Retail Consortium (BRC) also report a slight improvement although trading conditions were still described

as tough. They report that like-for-like retail sales fell by 0.2 per cent in October compared with October 2004. This follows a decrease of 0.8 per cent in September 2005 when compared with September 2004. The BRC report that clothing and footwear showed larger declines than in September due to the unseasonably mild weather. However, food sales improved. Big - ticket and housing related items continue to be affected by consumer caution (Figure 10).

In a seperate survey (the CBI and Grant Thornton service sector survey), it was reported that the slowdown hitting high street sales is also affecting the service sector. The survey showed the rate of growth in both consumer (hotel, cinemas and tour operators) and business & professional services (telecommunications, marketing and legal companies) slowing, with firms being increasingly pessimistic about the future, due to the impact of the economic slowdown.

Figure 10
External retailing

Balances, 3 month moving average
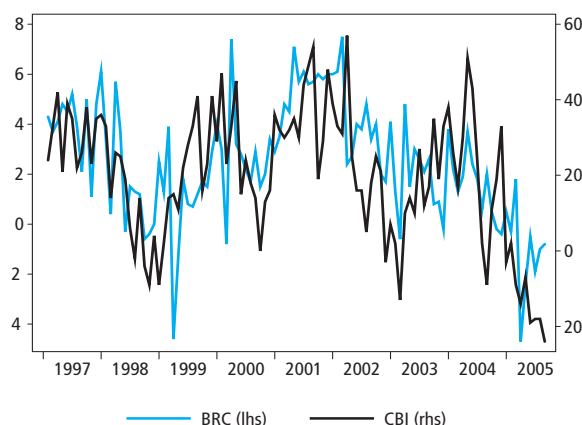
Business demand

The provisional estimate of business investment for the third quarter of 2005 was 0.3 per cent higher than the previous quarter, representing a downward movement on the second quarter growth of 1.5 per cent. Business investment was 1.9 per cent higher than the third quarter of 2004, compared with growth of 4.2 per cent in 2005 quarter two (Figure 11).

Looking at business investment on a more dis-aggregated level shows the increase on the quarter was due to increases in investment from 'other' services,'other' production, and construction This was offset by a decrease in investment from the distribution services and manufacturing industries. This somewhat reverses the picture in the previous quarter where there was a revival in investment in private sector manufacturing and a fall in 'other' production industries (mainly due to fall in investment by the mining and quarrying industries).

Investment in private sector services is the most important component representing around three quarters of total business investment. Private sector services investment rose by 2.7 per cent in 2005 quarter three, compared with the second quarter growth rate of 0.1 per cent. The quarterly rise is partly due to increased capital spending by the transport and communications industries.

Figure 11
Total fixed business investment

Growth
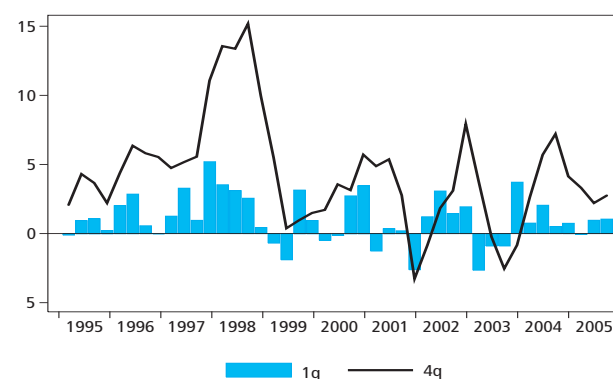
Manufacturing investment according to the provisional estimate for the third quarter shows a decrease compared to quarter two. The manufacturing sector accounts for a little over one tenth of total business investment. This has tended to be fairly volatile, but since 1999 manufacturing investment has undergone a persistent contraction. In 2005 quarter two there was a recovery in investment by the private and public sector manufacturing industries following a fall in the previous quarter.

According to the latest figures, total manufacturing investment fell by 1.6 per cent. However, compared with the third quarter of 2004, total manufacturing investment rose by 4.6 per cent. Private sector manufacturing investment fell by 1.5 per cent on the quarter and rose 4.7 per cent on a year ago.The quarterly fall is mainly from lower capital expenditure by the engineering and vehicles industries (−10.7 per cent), the chemicals and man made fibre industries (−8.7 per cent) and the metals and metal goods industries (−6.5 per cent).

Construction investment rose 6.7 per cent on the quarter and 6.1 per cent on the year. 'Other' production rose by 2.4 per cent on the quarter and rose by 3.0 per cent compared with the third quarter of 2004.

Despite the rise in spending over the last two quarters, the environment still remains a mixed one for investment. Low interest rates by historical standards might be one possible explanation accounting for the recent growth, meaning that the cost of capital is relatively cheap. However, this may not be the case with the most recent quarter. According to the latest figures there appears to be a slowdown in investment, particularly for manufactured goods. This may partly reflect a continued weakness and uncertainty of demand.

Profitability though is likely to be an important factor determining investment.

High profitability is an indicator of high returns from investing in the capital stock and is likely to buoy business confidence. In addition, retained profits are a cheap source of investment funds, which will lower the cost of capital expenditures. Profitability can be defined as the net rate of return on capital employed. This is essentially the value of profits (allowing for depreciation) divided by the value of fixed assets (again allowing for depreciation) and inventories.

The overall profitability of UK private non- financial corporations in the second quarter of 2005 was 13.7 per cent, higher than the estimate of 13.3 per cent recorded in the previous quarter. Manufacturing companies' net rate of return was estimated at 7.5 per cent in the second quarter. This is higher than the average of 7.0 per cent for 2004. The higher rate of return may be partly a reflection of the pick up in global demand, particularly from the non-EU and partly may be a result of lower rises in manufacturing unit labour costs.The profitability of service companies was 16.8 per cent, lower than the 17.5 per cent recorded in 2005 quarter one. It is however, higher than the average for 2004 of 16.4 per cent. Generally, service sector profitability is higher than that of the manufacturing sector, reflecting the more capital-intensive nature of the manufacturing sector.

Evidence on investment intentions from the latest BCC and CBI surveys shows a not inconsistent picture. According to the quarterly BCC survey, the balance of manufacturing firms planning to increase investment in plant and machinery remained unchanged in quarter three from quarter two at plus nine. However, the CBI in its 2005 quarter three Industrial Survey report a further deterioration in manufacturing investment plans in both plant and machinery from minus 15 in quarter two to minus 19 in quarter three, reflecting deteriorating confidence and uncertainty about future demand.

Government demand

Government final consumption expenditure in real terms grew by 0.3 per cent in the third quarter of 2005, a lower rate of growth than the 0.5 per cent rate in the previous quarter. Growth compared with the same quarter a year ago was 1.6 per cent, compared with a 1.5 per cent rise in the previous quarter (Figure 12).

Figure 12
Government spending

Growth
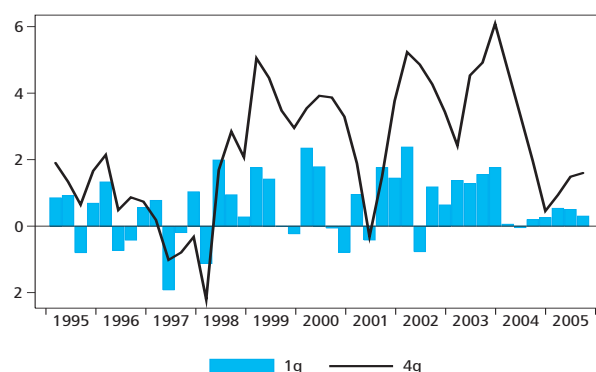
The latest figures on the public sector finances report up to October and show an improvement from September and a year ago. The current budget surplus (excluding net capital investment), was £4.1 billion compared with a deficit of £0.4 billion in October 2004. Public sector net borrowing (government's preferred measure) and which takes account of capital spending registered a deficit of £2.2 billion compared with a net borrowing of £1.7 billion in October 2004. The public sector net cash requirement (cash based measure),

was –£5.0 billion compared to a net cash requirement of –£1.5 billion in October 2004. These figures reflect buoyant receipts from income and corporation taxes, mainly from higher oil revenues and moderate public expenditure.

However, it is worth noting that monthly data can be volatile. The financial year to date may provide a better picture. The figures for the current financial year to date (April 2005 to October 2005) net borrowing presently stands at £20.9 billion compared to £25.6 billion in the same period in 2004/05. The current budget deficit stands at £10.8 billion, a lower deficit compared to the £18.4 billion deficit in the same period of 2004/05. Since net borrowing became positive in 2002, following the current budget moving from surplus into deficit, net debt as a proportion of annual GDP has risen steadily.

At the end of 2001 public sector net debt was 30.2 per cent of GDP; by the end of October 2005, this had risen to 35.0 per cent of GDP.

Trade and the Balance of Payments

The publication of the quarterly Balance of Payments shows that the current account deficit narrowed in 2005 quarter two to £3.1 billion from a revised deficit of £7.3 billion recorded in the previous quarter (Figure 13). As a proportion of GDP the deficit improved to minus 1.0 per cent from minus 2.5 per cent in 2005 quarter one. The lower deficit is accounted for by a combination of a lower transfers deficit, higher investment income surplus and a lower trade deficit.

The transfers deficit was down £1.0 billion to £2.5 billion, with net contributions to EU institutions returning to more normal levels after the high payments recorded in the first quarter. The income surplus widened to £9.2 billion, from £7.3 billion in the first quarter. This is partly a result of lower dividends paid to non-resident holders of UK equity and partly due to a strong rise on interest receipts and payments on debt and deposits/lending, possibly a result of higher US interest rates together with increased cross-border investment.

The run of current account deficits since 1998 reflects the sustained deterioration in the trade balance. The UK has traditionally run a surplus on the trade in services, but this has been more than offset by the growing deficit in trade in goods. The long run deterioration in the UK's trade deficit is due to exports growing more slowly than world trade due possibly to the high value of sterling and weak demand from Continental Europe, whilst imports have grown strongly due to high domestic spending.

According to the latest monthly trade figures, the UK's deficit on trade on goods and services is estimated to have narrowed in September to £3.9 billion from a deficit of £5.6 billion in August. The August estimate was afffected by a downward adjustment to services data of £1.4 billion to account for the estimated payment of claims by Lloyds of London arising from the effects of Hurricane Katrina.

The goods trade deficit with the European Union widened to £3.1 billion in September from £2.8 billion in August. The trade gap with countries outside the EU narrowed to £2.3 billion in September from £3.1 billion in the previous month.

Figure 13
Balance of Payments
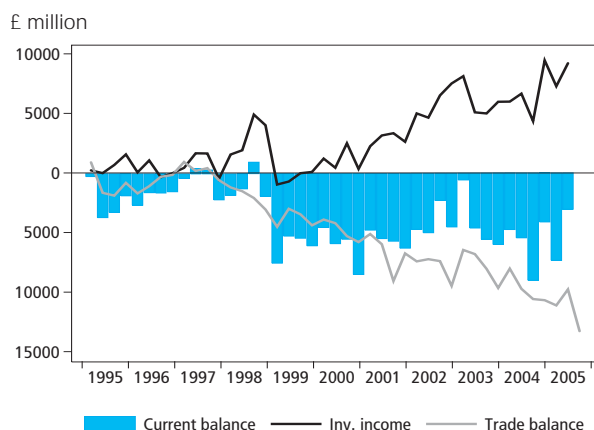
£ million

The surplus in the trade in services recovered to £1.6 billion in September from £0.3 billion in August as the downward adjustmemt due to the payment claims as a result of Hurricane Katrina was no longer a major factor in September.

The deficit in the third quarter on trade in goods and services widened to £13.3 billion from £9.8 billion in the previous quarter.

The monthly figures, it would appear to suggest that the UK is starting to benefit from a pick up in world trade, aided by a boost from a slightly lower pound. However, recent export figures need to be treated with caution as they may have been distorted by VAT Missing Trader Intra- Community (MTIC) Fraud. The effect of this fraud would lead to an over recording of exports and under recording of imports. For instance, traders import goods, mainly on high value and eaily transportable goods such as mobile phones and computer chips VAT free, sell them on for a sum including VAT, and then disappear before passing the VAT to Customs and Revenue. A more sophisticated version of the fraud known as 'carousel fraud' enables goods to be imported and passed through a series of companies before being exported out of the UK. The same goods are then re-imported, replicating the fraud. There are some indications that this type of fraud is now taking place to non- EU destinations and may be partially responsible for inflating recent non-EU export figures.

External surveys on exports show mixed conditions for the third quarter of 2005. The quarter three BCC survey reports there was an improvement in the manufacturing sector's export performance both in terms of orders and deliveries. In contrast, the latest quarterly CBI Industrial Trends Survey report a deterioration in export orders

Labour Market

In recent years the strength of the UK economy has been clearly reflected in the labour market statistics. The latest figures from the Labour Force Survey (LFS) pertain to the three- month period up to September 2005 and show a mixed picture. Overall however, there appears to be signs of stabilisation in activity following signs of softening in the previous recent quarters, with the employment rate

rising slightly further and the unemployment rate remaining unchanged from the previous quarter. The claimant count increased. Average earnings growth, including bonuses fell, whilst average earnings growth excluding bonuses was unchanged.

The current working age employment rate stands at 74.9 per cent, up 0.2 percentage point from the previous three months to June. The number of people in employment rose by 123,000 over the quarter. The unemployment rate was 4.7 per cent, unchanged from the previous quarter. (Figure 14). The number of unemployed declined by 1,000 over the quarter. The working age inactivity rate fell by 0.1 percentage point to stand at 21.3 per cent. The claimant count measures the number of people receiving the job-seekers allowance. The latest figures for October show the claimant count level at 890,000, up 12,100 on the month, and up 53,700 on a year earlier. It has shown an average monthly increase of 8,000 over the last six months.

As job vacancies are often filled from the pool of inactive workers rather than the unemployed, the softening of labour market activity recently may have been partly due to the rise in the inactivity rate. However, this seems to be less of a case in quarter three according to the latest figures than was the case in the second quarter, where the inactivity rate and level actually fell over the quarter. The economically inactive are those that are of working age but are either not looking for work or are not available for work. The main groups classed as economically inactive are those looking after the family or home, the long term sick, students and the retired.

Overall, inactivity decreased in the three months to September 2005, continuing the trend from the three months to August. The number of economically inactive people of working age was down 36,000 over the quarter to stand at 7.89 million. Over the year the number decreased by 16,000. Those looking after the family/home had the largest fall of 42,000 followed by the long-term sick at 38,000.

According to the LFS, in the period July to September 2005, 123,000 jobs were created. Employee jobs increased by 101,000. Self employment increased by 38,000. This reverses the trend of previous recent quarters where there was a fall in self employment. There was a partially offsetting effect on those on government supported training & employment programmes, which fell by 9,000 followed by unpaid family workers at 8,000.

The 'workforce jobs' (employer based survey) is available for the three months up to June 2005. Workforce jobs decreased by 49,000 on the quarter but increased overall by 150,000 on the year. Figures show that manufacturing continues to shed jobs, with a loss of 47,000 in the latest quarter, compared with the previous quarter, followed by construction on 38,000. This was partially offset by increases in finance & business services of 21,000 and in 'other' services' of 17,000.

After steadily rising throughout most of 2004, headline average earnings growth stabilised at the beginning of 2005 and this has continued in the latest figures. Figures based on the average over a three- month period show that in the year

Figure 14
Unemployment and economically inactive

Per cent

Figure 15
Oil prices

Brent crude per barrel
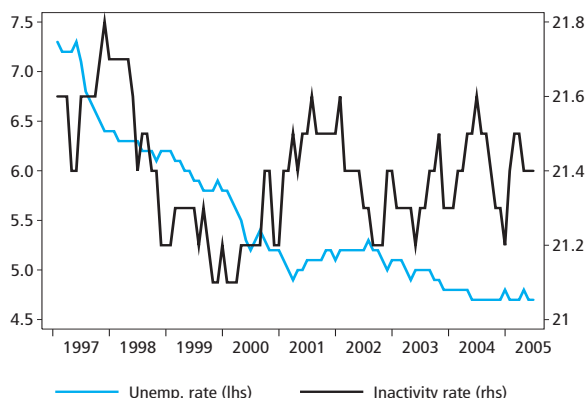
to September 2005, average earnings including bonuses was 4.1 per cent, down 0.1 percentage point from the previous month, slightly down on the average of quarter two, and lower than the 4.5 per cent average of 2005 quarter one. This may partly be a reflection of a loosening in the labour market due to an increase in the workforce. Average earnings growth (excluding bonuses) has been more stable. It has increased at a lesser rate in the three quarters up to September of 2005 than in most of 2004. The latest figures for September, show the AEI (excluding bonuses), unchanged from the previous month at 4.0 per cent.

Wage growth in the public sector, (excluding bonuses), has been oustripping the private sector throughout 2005. In August, the gap narrowed. However, acccording to the latest figures for September, wage growth of the public and private sector achieved parity with both growing by 0.4 percentage points. If bonuses are included, the latest figure shows the public sector continuing to out-strip the private sector for the fifth month running. The three month average wage growth in September for the public sector was 4.2 per cent compared to 4.0 per cent in the private sector. The overall picture is one of strong but steady earnings growth.

Prices

The first two quarters of 2005 saw a fall in output price inflation, although it still remained at levels substantially above those at the beginning of 2004. In September there was a significant pick up in producer output prices to 3.3 per cent from 3.0 per cent in August due mainly to the effects of higher oil prices (Figure 15). The latest figures for October, however, show producer output price inflation falling sharply to 2.6 per cent. This mainly reflected falls in other manufactured product (particularly scrap metal) and food prices. This may suggest firms have not passed fully on high oil and raw material prices to the consumer and instead have absorbed them into their profit margins. The overall input index rose by 7.7 per cent in the year to October, compared with a rise of 10.2 per cent in the year to September. The fall mainly reflected price falls in crude oil. The fall in petroleum prices is also feeding through to consumer prices as we shall see below.
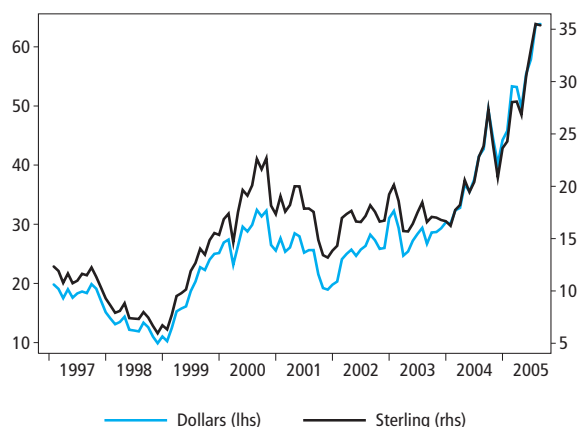
Growth in the consumer price index (CPI) – the government's target measure of inflation – fell to 2.3 per cent in October, from 2.5 per cent in September but still continued to exceed the Chancellor's 2.0 per cent target (Figure 16). The largest downward effect came from financial services, particularly from bank overdrafts where increases in charges were not as steep as a year ago. Another large downward contribution came from food and non-alcoholic beverages as prices for some fresh vegetables, fell this year due to increased supplies, but rose a year ago. A large downward contribution came from fuels and lubricants due to falling petrol prices in October. This was offset by a large upward contribution from air fares and small upward contributions from tobacco and cultural services. The RPI inflation rate was 2.5 per cent in October, down from 2.7 per cent in September mainly due to lower housing costs, particularly depreciation. The RPIX inflation rate rose in October by 2.4 per cent, down from 2.5 per cent in September.

Figure 16
Inflation

Growth, month on month a year ago
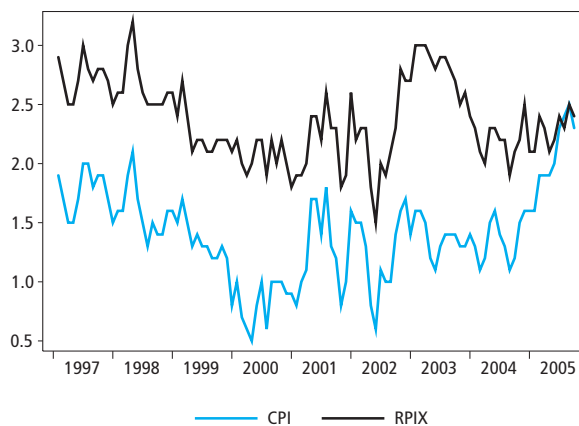
Forecasts for the UK economy

A comparison of independent forecasts, November 2005

The tables below are extracted from HM Treasury's Forecasts for the UK Economy and summarise the average and range of independent forecasts for 2005 and 2006, updated monthly.

Independent forecasts for 2005

	Average	Lowest	Highest
GDP growth (per cent)	1.7	1.5	1.9
Inflation rate (Q4 per cent)			
CPI	2.4	1.9	2.7
RPI	2.5	2.0	3.4
Claimant unemployment (Q4, million)	0.89	0.81	0.95
Current account (£ billion)	−22.8	−28.0	−17.8
Public Sector Net Borrowing (2004–05, £ billion)	39.1	33.6	45.4

Independent forecasts for 2006

	Average	Lowest	Highest
GDP growth (per cent)	2.1	0.2	2.9
Inflation rate (Q4 per cent)			
CPI	1.9	1.3	2.8
RPI	2.3	0.7	3.6
Claimant unemployment (Q4, million)	0.95	0.81	1.15
Current account (£ billion)	−26.0	−38.0	−15.0
Public Sector Net Borrowing (2005–06, £ billion)	39.2	30.0	51.8

NOTE Forecasts for the UK Economy gives more detailed forecasts, covering 27 variables and is published monthly by HM Treasury, available on annual subscription, price £75. Subscription enquiries should be addressed to Claire Coast-Smith, Public Enquiry Unit 2/S2, HM Treasury, 1 Horse Guards Road, London, SW1A 2HQ (Tel 020 7270 4558). It is also available at the Treasury's internet site: http://www.hm-treasury.gov.uk under 'Economic Data and Tools'.
*PSNB: Public Sector Net Borrowing.

Corporate services price index (experimental)
Quarter 3, 2005

What is the CSPI?

The experimental Corporate Services Price Index (CSPI) measures movements in prices charged for services supplied by businesses to other businesses, local and national government. The data produced are used internally by the Office for National Statistics (ONS) as a deflator for the Index of Services and the quarterly measurement of Gross Domestic Product (GDP). It is also used by the Treasury and Bank of England to help monitor inflation in the economy.

Results for Quarter 3, 2005

Prices of business-to-business services rose by 3.8 per cent in the year to the third quarter 2005. This is based on a comparison of the change in the top-level CSPI on the *net* sector basis.

Figure 1 shows how the percentage change for the top-level CSPI (net sector) compares with the Retail Price Index (RPI) and the Producer Price Index (PPI) for all manufactured goods (net sector).

The top-level results, on both gross and net sector bases, are shown in Table 1. In 2005 Q3, the top-level CSPI (net sector) rose by 0.8 per cent compared to the previous quarter.

Figure 1
Experimental top–level CSPI compared with the Retail Price Index (RPI) for services and the Producer Price Index (PPI)

Percentage change on the same quarter a year ago

United Kingdom
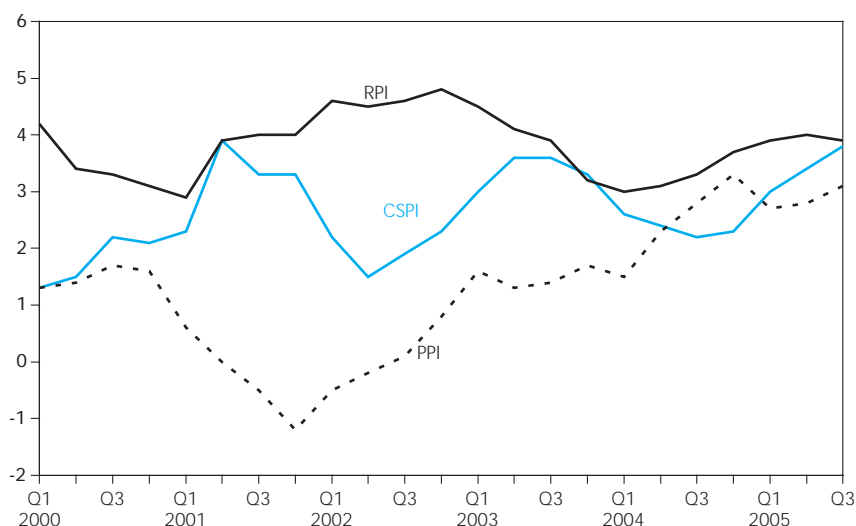
Table 1
CSPI results

		CSPI Quarterly Index Values 2000=100		Percentage change on same quarter in previous year (per cent)	
		Gross sector	Net sector	Gross sector	Net sector
2000	Q1	99.8	99.5	–0.6	1.3
	Q2	99.6	99.5	–0.3	1.5
	Q3	100.2	100.3	0.9	2.2
	Q4	100.4	100.7	1.0	2.1
2001	Q1	101.4	101.8	1.5	2.3
	Q2	102.9	103.4	3.3	3.9
	Q3	103.5	103.7	3.2	3.3
	Q4	103.8	104.1	3.4	3.3
2002	Q1	103.8	104.1	2.4	2.2
	Q2	104.7	105.0	1.8	1.5
	Q3	105.6	105.6	2.0	1.9
	Q4	106.1	106.4	2.2	2.3
2003	Q1	106.6	107.2	2.7	3.0
	Q2	108.1	108.8	3.2	3.6
	Q3	108.7	109.3	3.0	3.6
	Q4	109.2	109.9	2.9	3.3
2004	Q1	109.3	110.1	2.5	2.6
	Q2	110.6	111.4	2.4	2.4
	Q3	111.0	111.8	2.1	2.2
	Q4	111.6	112.5	2.3	2.3
2005	Q1	112.3	113.4	2.7	3.0
	Q2	113.6	115.1	2.7	3.4
	Q3	114.5	116.0	3.2	3.8

Figure 2 depicts the CSPI annual growths for both the net and gross sector time series. The net CSPI growth shows an increase to 3.8 per cent for 2005 Q3 from 3.4 per cent in 2005 Q2. The annual growth for the CSPI gross series shows an increase to a value of 3.2 per cent in 2005 Q3 from a value of 2.7 per cent in 2005 Q2. The difference in annual growth between the gross sector and net sector CSPI is 0.6 per cent this quarter.

Industry-specific indices

The tables attached at the end of this release contain the data for the thirty-two industries for which indices of corporate services prices are currently available. The weights for each industry index are shown at both gross and net sector levels. Some key points to note are:

- *waste disposal* prices rose by 3.7 per cent on the previous quarter, reportedly due to general price increases across the industry

- *sea and coastal* prices rose by 3.5 per cent on the previous quarter, reportedly due to an increase in fuel prices

Figure 2
Experimental top–level CSPI (Gross and net sector)

Percentage change on the same quarter in previous year

United Kingdom
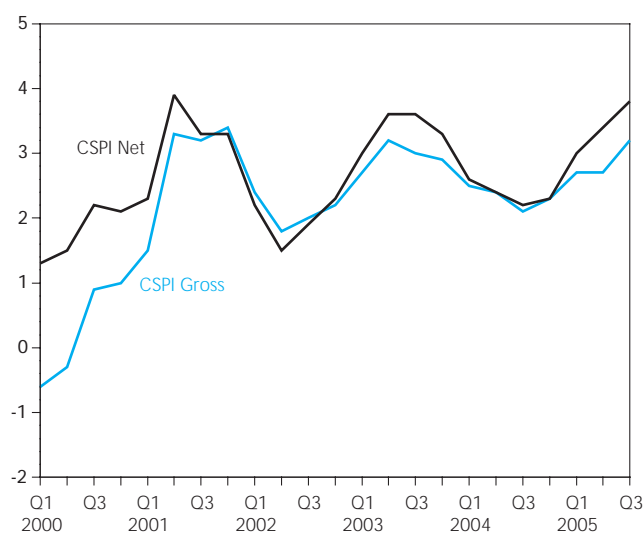
- *real estate* prices rose by 2.6 per cent on the previous quarter as reported by the Investment Property Databank

- *freight forwarding* prices rose by 1.8 per cent on the previous quarter, reportedly due to an increase in fuel prices

- *employment agencies* prices rose by 1.7 per cent on the previous quarter, reportedly due to general price increases across the industry

- *canteens and catering* prices rose by 1.4 per cent on the previous quarter, reportedly due to general price increases across the industry

- *freight transport* by road prices rose by 1.2 per cent on the previous quarter reportedly due to an increase in fuel prices

- *banking prices* fell by 2.9 per cent on the previous quarter as reported by the Bank of England

Background notes

1. The experimental Corporate Services Price Index (CSPI) was rebased to the year 2000 and released on 20 February 2004. Many aspects of the methods and sources used to compile the CSPI have been reviewed and updated in the rebasing. For more information on the methodology and associated impact of the rebasing see www.statistics.gov.uk/downloads/ experimental/CSPI_Rebasing_Methodology_and_Impact.pdf.

2. The February 2004 release of the rebased CSPI also introduced a redeveloped business telecommunications index and new banking (loans and interest bearing deposits) index. ONS has also expanded substantially the survey of businesses on which the CSPI is based. We now survey 1,500 businesses, seeking price quotes for 5,000 service-products. For further information on the redeveloped business telecommunications CSPI see www.statistics.gov .uk/downloads/experimental/Redeveloped_Business_Telecommunications.pdf. For further information on the new banking CSPI see www.statistics.gov.uk/downloads/experimental/New_Banking_CSPI.pdf.

3. The CSPI is shown in this release as both net and gross sector time series, aligning with the PPI release format. The net series is scoped to monitor the corporate-service activity provided to other businesses and government organisations, outside the corporate services sector. The gross series is scoped to monitor the provision of corporate services to all businesses and government organisations.

4. Indices relate to average prices for a quarter. The full effect of a price change, occurring partway through any quarter, will only be reflected in the following quarter's index. All index numbers exclude VAT.

5. Some back data for a few industry specific indices have been revised. The figures previously published are now

found to have included transcription errors. Many of the revisions are very small, either 0.1 or 0.2 index points, although some are larger. The largest revisions are to the 2003 index number level and growth rate for hotels and technical testing (around one index point). The largest revisions to quarterly growth rates are for bus and coach hire growth in quarter 3 2000 (revision of 1 index point) and to banking services in quarter 3 2002 (revision of two index points). There were no errors in the top-level CSPI index number levels or growth rates. The index numbers in this publication have now been subject to a further quality assessment and improvements to operational procedures are being put in place as a result.

Note: Measurement of service sector prices is inherently difficult and challenging. When viewing the results, *it should be borne in mind that the indices shown are regarded as experimental.* This is particularly true of those that have been added to the series most recently. Therefore, some of the results will be subject to revision before the completion of the CSPI development project. The top-level index should also be viewed as experimental.

6. *Review of car contract hire.* ONS contract a private agency to provide price information on the car contract hire industry for inclusion in the experimental CSPI. In the first quarter of 2005, the agency made changes to their weighting patterns which has led to a significant jump in the level of their index. ONS has reviewed the way in which this index is calculated and has decided to withdraw it from the CSPI until further notice. This has increased the industry weights for the remaining components of the index and has caused slight revisions to the net and gross top-level CSPI back to 2000 Q1. For the first, second and third quarters of 2005, the removal of the car contract hire index has reduced the net and gross annual growth by around 0.2 per cent.

7. I*ndex weighting methodology.* Enhancements have been made to the CSPI weighting calculations and are now ready to be implemented into the series. This follows research into the 2000=100 rebasing exercise and will incorporate improvements to the way in which the experimental index is compiled. At the request of ONS National Accountants, this methodological change will not now be introduced until mid 2006 in order to fit in with the publication of the 2006 *Blue Book.*

8. *Presentation of future experimental releases.* Following the withdrawal of the car contract hire index from the CSPI, improvements to the way in which CSPI results are presented will now be introduced in February 2006, alongside the existing publication. These will include additional commentary on index movements together with accompanying charts and the introduction of industry family grouping to aid interpretation.

9. *Employment agencies.* The CSPI for employment agencies has been revised over the last six quarters to take account of updated salary information from the ONS Annual Survey of Household Expenditure (ASHE).

Note to the main table:

There are external sources for the indices denoted by an asterisk, as follows:

Index	Source
Banking Services	Bank of England
Property rental payments	Investment Property Databank (IPD)
Maintenance and repair of motor vehicles	Yewtree.com Ltd
Construction plant hire	Construction Plant-hire Association (CPA) up to Quarter 2 of 2002
Business telecommunications	Ofcom (Office of Communications)
Sewerage services	Ofwat (Office of Water Services)
National post parcels	Parcelforce
Business rail fares	Strategic Rail Authority (SRA)

Next results

The next set of CSPI results will be issued on 17 February 2006 via the National Statistics website: www.statistics.gov.uk/cspi.

Further information

- Articles on the methodology and impact of rebasing the CSPI, the re-development of an index for business telecommunications and the introduction of an index for banking services (together with more general information on the CSPI) are available at www.statistics.gov.uk/cspi

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Table 2
Corporate Services Price Indices (Experimental) (2000=100)

	Maintenance and repair of motor vehicles*	Hotels	Canteens and catering	Business rail fares*	Rail Freight	Bus and coach hire	Freight transport by road	
							Total	International component
SIC(2003)	50.2	55.1	55.50	60.10/1	60.10/9	60.23/1	60.24/9	
2000 weights per cent								
Gross sector	3.01	3.78	3.11	0.33	0.64	0.12	13.05	
Net sector	2.15	4.23	3.48	0.17	1.07	0.20	21.93	
Annual								
2000	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2001	102.9	104.3	104.2	103.1	100.5	106.8	102.9	100.3
2002	106.1	104.3	105.4	106.1	102.1	114.7	103.9	99.3
2003	110.2	108.6	106.6	109.8	103.5	120.8	106.2	99.3
2004	115.2	111.8	107.6	114.4	104.1	123.9	108.4	99.8
Percentage change, latest year on previous year								
2000	2.3	2.3	0.1	4.5	−1.0	6.5	4.6	2.6
2001	2.9	4.3	4.2	3.1	0.5	6.8	2.9	0.3
2002	3.1	0.0	1.1	2.9	1.6	7.4	1.0	−1.0
2003	3.9	4.2	1.1	3.5	1.4	5.3	2.2	0.1
2004	4.5	2.9	1.0	4.2	0.6	2.5	2.1	0.4
Quarterly results (not seasonally adjusted)								
2000 Q1	99.1	98.8	99.1	100.0	101.8	98.1	98.9	99.5
Q2	99.6	100.1	100.1	100.0	99.4	99.9	99.3	99.5
Q3	100.2	100.7	100.1	100.0	99.4	100.6	100.2	100.0
Q4	101.2	100.5	100.7	100.0	99.4	101.4	101.6	101.0
2001 Q1	102.0	102.9	103.2	103.1	100.3	103.4	102.5	100.9
Q2	102.8	104.7	104.4	103.1	101.1	105.1	103.0	100.2
Q3	103.5	104.5	104.5	103.1	100.5	108.1	103.1	99.8
Q4	103.3	104.9	104.6	103.1	100.1	110.8	103.0	100.1
2002 Q1	104.9	103.7	104.7	106.1	101.3	111.7	102.9	99.6
Q2	105.5	103.4	105.3	106.1	102.1	113.3	103.6	99.4
Q3	106.6	104.0	105.7	106.1	102.4	116.4	104.3	99.7
Q4	107.4	106.0	105.7	106.1	102.5	117.4	104.9	98.3
2003 Q1	108.9	107.2	106.1	109.8	102.7	119.2	105.6	99.3
Q2	109.8	107.2	106.4	109.8	103.4	120.8	106.1	99.3
Q3	110.4	109.1	106.7	109.8	103.6	121.6	106.3	99.5
Q4	111.7	110.9	107.0	109.8	104.2	121.7	106.8	99.2
2004 Q1	113.3	110.5	107.2	114.4	103.7	122.4	107.1	99.0
Q2	114.6	112.3	107.4	114.4	104.1	123.4	107.8	99.1
Q3	115.9	112.0	108.0	114.4	104.3	124.6	108.7	100.3
Q4	116.8	112.4	107.9	114.4	104.5	125.2	110.0	100.7
2005 Q1	118.9	114.1	108.8	120.0	105.6	125.9	111.8	103.4
Q2	119.0	114.2	109.9	120.0	105.8	127.8	113.0	105.3
Q3	119.8	114.4	111.4	120.0	106.6	128.2	114.3	106.8

Table 2 – *continued*

	Maintenance and repair of motor vehicles*	Hotels	Canteens and catering	Business rail fares*	Rail Freight	Bus and coach hire	Freight transport by road	
							Total	International component
SIC(2003)	50.2	55.1	55.50	60.10/1	60.10/9	60.23/1	60.24/9	
Percentage change, latest quarter on previous quarter								
2000 Q1	0.3	1.7	−0.4	4.5	0.5	1.6	1.3	2.2
Q2	0.5	1.3	1.1	0.0	−2.3	1.9	0.5	0.0
Q3	0.6	0.6	0.0	0.0	0.0	0.7	0.9	0.5
Q4	1.0	−0.2	0.5	0.0	0.0	0.8	1.4	0.9
2001 Q1	0.8	2.4	2.5	3.1	0.9	1.9	0.9	−0.1
Q2	0.8	1.8	1.2	0.0	0.8	1.7	0.5	−0.6
Q3	0.6	−0.2	0.1	0.0	−0.6	2.8	0.1	−0.4
Q4	−0.2	0.3	0.1	0.0	−0.4	2.5	0.0	0.3
2002 Q1	1.5	−1.1	0.0	2.9	1.2	0.9	−0.1	−0.5
Q2	0.6	−0.3	0.6	0.0	0.8	1.4	0.7	−0.2
Q3	1.0	0.6	0.4	0.0	0.2	2.8	0.6	0.3
Q4	0.8	1.9	0.0	0.0	0.1	0.9	0.5	−1.4
2003 Q1	1.5	1.2	0.4	3.5	0.2	1.5	0.7	1.0
Q2	0.8	0.0	0.2	0.0	0.7	1.3	0.5	0.0
Q3	0.6	1.8	0.3	0.0	0.2	0.6	0.2	0.1
Q4	1.2	1.6	0.2	0.0	0.5	0.1	0.5	−0.3
2004 Q1	1.4	−0.4	0.2	4.2	−0.5	0.6	0.3	−0.2
Q2	1.1	1.6	0.2	0.0	0.4	0.8	0.6	0.1
Q3	1.2	−0.3	0.5	0.0	0.2	0.9	0.8	1.3
Q4	0.7	0.4	0.0	0.0	0.2	0.5	1.2	0.4
2005 Q1	1.8	1.6	0.8	4.9	1.1	0.6	1.6	2.7
Q2	0.1	0.0	1.0	0.0	0.2	1.5	1.1	1.8
Q3	0.7	0.2	1.4	0.0	0.8	0.3	1.2	1.4
Percentage change, latest quarter on corresponding quarter of previous year								
2000 Q1	2.5	−1.3	−0.8	4.5	1.3	6.3	5.2	1.9
Q2	2.0	3.3	−0.2	4.5	−1.7	7.3	4.3	2.2
Q3	2.2	4.0	0.4	4.5	−1.8	7.2	4.6	2.7
Q4	2.5	3.4	1.2	4.5	−1.8	5.1	4.1	3.7
2001 Q1	2.9	4.2	4.2	3.1	−1.4	5.4	3.7	1.4
Q2	3.2	4.7	4.3	3.1	1.6	5.3	3.7	0.7
Q3	3.3	3.8	4.3	3.1	1.1	7.4	2.8	−0.2
Q4	2.1	4.4	4.0	3.1	0.7	9.2	1.4	−0.9
2002 Q1	2.8	0.7	1.4	2.9	1.0	8.1	0.4	−1.2
Q2	2.6	−1.3	0.9	2.9	1.0	7.7	0.6	−0.8
Q3	3.0	−0.5	1.2	2.9	1.9	7.7	1.2	−0.2
Q4	3.9	1.0	1.0	2.9	2.4	6.0	1.8	−1.8
2003 Q1	3.9	3.3	1.4	3.5	1.3	6.7	2.6	−0.3
Q2	4.0	3.7	1.0	3.5	1.3	6.7	2.3	−0.1
Q3	3.6	5.0	1.0	3.5	1.2	4.4	1.9	−0.2
Q4	4.1	4.7	1.2	3.5	1.6	3.6	1.9	0.9

Table 2 – *continued*

	Maintenance and repair of motor vehicles*	Hotels	Canteens and catering	Business rail fares*	Rail Freight	Bus and coach hire	Freight transport by road	
							Total	International component
SIC(2003)	50.2	55.1	55.50	60.10/1	60.10/9	60.23/1	60.24/9	
Percentage change, latest quarter on corresponding quarter of previous year								
2004 Q1	4.0	3.1	1.0	4.2	0.9	2.7	1.5	–0.4
Q2	4.4	4.8	0.9	4.2	0.7	2.1	1.6	–0.3
Q3	5.0	2.6	1.1	4.2	0.6	2.5	2.2	0.9
Q4	4.5	1.3	0.9	4.2	0.3	2.9	2.9	1.5
2005 Q1	4.9	3.2	1.5	4.9	1.8	2.9	4.3	4.5
Q2	3.8	1.7	2.3	4.9	1.6	3.6	4.8	6.3
Q3	3.4	2.2	3.2	4.9	2.2	2.9	5.2	6.4

Table 2 – *continued*
Corporate Services Price Indices (Experimental) (2000=100)

	Commercial vehicle ferries	Sea and coastal water freight	Business air fares	Freight forwarding	National post parcels*	Courier services	Business telecoms services*	Banking services*
SIC(2003)	61.10/1	61.10/2	62.10/1	63.4	64.11	64.12	64.2	65.12/1
2000 weights per cent								
Gross sector	0.30	0.75	3.37	7.67	3.57	2.48	12.15	2.98
Net sector	0.38	0.95	1.65	6.43	1.88	1.31	5.59	3.35
Annual								
2000	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2001	98.7	100.7	115.1	100.4	103.1	102.7	92.6	108.2
2002	100.6	95.0	122.8	99.8	107.1	107.1	90.6	116.5
2003	102.8	96.1	127.1	104.3	113.3	109.2	87.8	125.6
2004	102.6	95.2	129.6	107.6	119.5	112.7	85.6	126.7
Percentage change, latest year on previous year								
2000	1.9	2.8	5.6	0.9	4.1	0.2	−16.0	10.2
2001	−1.3	0.7	15.1	0.4	3.1	2.7	−7.4	8.2
2002	2.0	−5.7	6.7	−0.6	3.9	4.2	−2.2	7.7
2003	2.1	1.1	3.5	4.4	5.9	2.0	−3.0	7.8
2004	−0.2	−0.9	2.0	3.2	5.4	3.2	−2.5	0.9
Quarterly results (not seasonally adjusted)								
2000 Q1	100.9	96.8	96.2	98.9	96.5	98.6	107.0	94.9
Q2	99.8	98.8	98.0	99.3	101.2	99.2	99.6	99.3
Q3	100.4	101.7	100.0	100.5	101.2	100.0	99.1	103.8
Q4	98.9	102.7	105.8	101.2	101.2	102.2	94.3	102.0
2001 Q1	101.5	103.9	111.9	102.2	101.2	100.4	93.1	101.4
Q2	99.0	101.6	113.1	100.6	103.7	101.5	92.8	109.0
Q3	97.0	99.9	116.8	99.4	103.7	104.2	93.7	106.7
Q4	97.3	97.5	118.5	99.4	103.7	104.8	90.8	115.7
2002 Q1	101.8	96.4	120.7	98.5	103.7	106.0	88.3	113.6
Q2	100.5	94.1	122.2	99.5	108.2	106.6	89.5	117.8
Q3	100.6	94.1	123.3	100.4	108.2	107.7	93.0	113.4
Q4	99.6	95.4	124.8	100.9	108.2	107.9	91.4	121.3
2003 Q1	102.6	98.8	124.9	102.2	108.2	108.6	88.2	122.5
Q2	102.8	97.0	127.1	104.4	115.0	109.4	87.3	125.8
Q3	102.8	94.5	128.1	105.0	115.0	109.3	88.2	125.7
Q4	102.8	94.0	128.2	105.5	115.0	109.4	87.6	128.4
2004 Q1	102.6	95.4	129.1	104.9	115.0	110.9	86.1	127.3
Q2	102.5	94.1	129.5	107.5	121.0	112.1	85.8	128.4
Q3	102.6	93.9	129.6	109.3	121.0	113.4	85.6	125.1
Q4	102.7	97.3	130.3	108.7	121.0	114.3	85.0	126.0
2005 Q1	104.8	96.7	132.3	109.9	121.0	115.0	83.4	125.5
Q2	104.7	97.7	133.5	111.9	124.0	116.2	82.7	126.7
Q3	104.8	101.2	134.9	113.9	124.0	117.6	81.5	123.1

Table 2 – *continued*

	Commercial vehicle ferries	Sea and coastal water freight	Business air fares	Freight forwarding	National post parcels*	Courier services	Business telecoms services*	Banking services*
SIC(2003)	61.10/1	61.10/2	62.10/1	63.4	64.11	64.12	64.2	65.12/1
Percentage change, latest quarter on previous quarter								
2000 Q1	5.6	2.1	0.8	0.7	0.0	−0.9	−3.2	3.2
Q2	−1.0	2.1	2.0	0.4	4.8	0.6	−6.9	4.7
Q3	0.6	2.9	2.0	1.2	0.0	0.8	−0.6	4.5
Q4	−1.4	1.0	5.8	0.7	0.0	2.1	−4.8	−1.7
2001 Q1	2.6	1.2	5.8	1.0	0.0	−1.8	−1.3	−0.5
Q2	−2.5	−2.2	1.1	−1.6	2.5	1.1	−0.3	7.4
Q3	−2.0	−1.7	3.3	−1.2	0.0	2.6	1.0	−2.1
Q4	0.3	−2.4	1.4	−0.1	0.0	0.6	−3.2	8.5
2002 Q1	4.6	−1.1	1.9	−0.9	0.0	1.2	−2.7	−1.8
Q2	−1.3	−2.4	1.2	1.0	4.4	0.6	1.3	3.6
Q3	0.1	0.1	0.9	0.9	0.0	0.9	4.0	−3.7
Q4	−1.0	1.3	1.2	0.5	0.0	0.2	−1.8	6.9
2003 Q1	3.0	3.6	0.1	1.3	0.0	0.6	−3.5	1.0
Q2	0.2	−1.8	1.7	2.2	6.3	0.7	−1.0	2.7
Q3	0.0	−2.6	0.8	0.5	0.0	−0.1	1.0	−0.1
Q4	0.0	−0.5	0.1	0.5	0.0	0.1	−0.6	2.2
2004 Q1	−0.2	1.5	0.7	−0.6	0.0	1.3	−1.7	−0.9
Q2	−0.1	−1.3	0.3	2.5	5.1	1.1	−0.4	0.9
Q3	0.0	−0.2	0.1	1.6	0.0	1.2	−0.2	−2.6
Q4	0.1	3.7	0.6	−0.5	0.0	0.8	−0.7	0.7
2005 Q1	2.1	−0.6	1.5	1.1	0.0	0.5	−1.8	−0.4
Q2	−0.1	1.0	0.9	1.7	2.5	1.1	−0.8	1.0
Q3	0.1	3.5	1.1	1.8	0.0	1.2	−1.5	−2.9
Percentage change, latest quarter on corresponding quarter of previous year								
2000 Q1	0.2	−3.1	2.5	−2.6	2.0	−0.7	−17.5	5.3
Q2	1.2	0.2	3.4	0.2	4.8	−0.7	−17.8	11.6
Q3	2.8	6.1	5.5	3.0	4.8	−0.2	−13.8	12.7
Q4	3.6	8.3	10.9	3.0	4.8	2.6	−14.7	10.9
2001 Q1	0.6	7.3	16.4	3.4	4.8	1.7	−13.0	6.9
Q2	−0.9	2.8	15.4	1.3	2.5	2.3	−6.9	9.7
Q3	−3.4	−1.8	16.8	−1.1	2.5	4.1	−5.4	2.8
Q4	−1.6	−5.1	12.0	−1.8	2.5	2.6	−3.8	13.5
2002 Q1	0.3	−7.2	7.8	−3.6	2.5	5.7	−5.1	12.0
Q2	1.5	−7.5	8.0	−1.1	4.4	5.1	−3.6	8.1
Q3	3.7	−5.8	5.6	0.9	4.4	3.3	−0.7	6.3
Q4	2.4	−2.1	5.3	1.5	4.4	3.0	0.7	4.8
2003 Q1	0.8	2.5	3.5	3.7	4.4	2.4	−0.1	7.8
Q2	2.3	3.1	4.0	4.9	6.3	2.6	−2.4	6.8
Q3	2.2	0.3	3.9	4.6	6.3	1.5	−5.2	10.8
Q4	3.2	−1.5	2.8	4.6	6.3	1.4	−4.1	5.9

Table 2 – *continued*

	Commercial vehicle ferries	Sea and coastal water freight	Business air fares	Freight forwarding	National post parcels*	Courier services	Business telecoms services*	Banking services*
SIC(2003)	61.10/1	61.10/2	62.10/1	63.4	64.11	64.12	64.2	65.12/1
Percentage change, latest quarter on previous quarter								
2004 Q1	0.0	−3.4	3.4	2.6	6.3	2.1	−2.4	3.9
Q2	−0.3	−3.0	1.9	3.0	5.1	2.5	−1.8	2.1
Q3	−0.3	−0.6	1.2	4.1	5.1	3.8	−3.0	−0.5
Q4	−0.1	3.6	1.6	3.1	5.1	4.5	−3.0	−1.9
2005 Q1	2.1	1.4	2.4	4.8	5.1	3.7	−3.1	−1.4
Q2	2.1	3.8	3.1	4.0	2.5	3.6	−3.5	−1.3
Q3	2.2	7.8	4.1	4.2	2.5	3.6	−4.7	−1.6

Table 2 – *continued*
Corporate Services Price Indices (Experimental) (2000=100)

	Property rentals*	Real estate agency activities	Construction plant hire*	Market research	Technical testing	Employment agencies
SIC(2003)	70.2	70.3	71.32	74.13	74.3	74.5
2000 weights per cent						
Gross sector	8.08	3.81	2.44	1.18	0.79	14.77
Net sector	12.79	1.62	5.90	1.02	1.00	6.83
Annual						
2000	100.0	100.0	100.0	100.0	100.0	100.0
2001	106.5	101.9	104.2	102.6	103.8	107.1
2002	111.0	102.6	102.0	107.0	107.2	112.0
2003	115.6	105.8	108.2	109.8	111.0	115.5
2004	120.2	114.6	106.8	111.4	112.7	117.4
Percentage change, latest year on previous year						
2000	5.7	6.5	5.1	2.4	1.3	2.3
2001	6.5	1.9	4.2	2.6	3.8	7.1
2002	4.3	0.7	−2.1	4.3	3.3	4.6
2003	4.1	3.1	6.1	2.6	3.6	3.1
2004	4.0	8.4	−1.3	1.4	1.5	1.7
Quarterly results (not seasonally adjusted)						
2000 Q1	98.0	98.5	96.6	99.7	99.3	99.3
Q2	99.3	99.7	100.8	100.0	99.6	99.9
Q3	100.6	100.6	101.7	100.5	100.0	100.1
Q4	102.2	101.3	100.9	99.8	101.1	100.7
2001 Q1	104.1	101.9	101.8	102.3	101.7	102.7
Q2	105.7	101.9	108.0	102.6	104.2	106.8
Q3	107.2	101.9	105.0	102.7	104.3	108.7
Q4	108.8	101.8	101.9	103.0	104.9	110.0
2002 Q1	109.6	101.5	100.3	106.4	106.0	111.6
Q2	110.7	102.0	101.4	106.5	106.3	111.9
Q3	111.3	103.0	102.9	106.9	107.6	112.4
Q4	112.5	103.8	103.3	108.3	108.9	112.2
2003 Q1	113.4	103.9	106.5	109.1	109.9	113.4
Q2	115.5	104.9	108.4	109.3	110.5	116.0
Q3	116.3	106.7	108.8	110.3	111.7	116.4
Q4	117.1	107.5	109.1	110.6	111.9	116.2
2004 Q1	118.3	110.2	107.0	110.8	112.4	116.1
Q2	119.4	113.6	107.8	111.1	112.3	117.6
Q3	120.9	116.0	106.2	111.4	112.9	117.5
Q4	122.2	118.8	106.1	112.2	113.2	118.5
2005 Q1	122.5	120.9	106.5	113.3	113.3	118.7
Q2	123.8	121.2	107.1	114.7	113.5	120.1
Q3	124.4	124.3	107.4	115.3	114.6	122.1

Table 2 – *continued*

	Property rentals*	Real estate agency activities	Construction plant hire*	Market research	Technical testing	Employment agencies
SIC(2003)	70.2	70.3	71.32	74.13	74.3	74.5
Percentage change, latest quarter on previous quarter						
2000 Q1	1.2	2.6	0.7	1.4	0.4	0.9
Q2	1.3	1.2	4.3	0.3	0.2	0.6
Q3	1.3	0.9	0.8	0.5	0.5	0.2
Q4	1.6	0.7	−0.7	−0.7	1.1	0.6
2001 Q1	1.9	0.6	0.9	2.5	0.6	2.0
Q2	1.5	0.0	6.1	0.3	2.5	4.0
Q3	1.4	0.0	−2.7	0.0	0.1	1.8
Q4	1.5	−0.1	−3.0	0.4	0.6	1.2
2002 Q1	0.8	−0.3	−1.5	3.2	1.0	1.4
Q2	1.0	0.5	1.0	0.1	0.3	0.3
Q3	0.5	0.9	1.5	0.4	1.2	0.4
Q4	1.1	0.8	0.4	1.2	1.3	−0.2
2003 Q1	0.8	0.1	3.1	0.8	0.9	1.1
Q2	1.8	1.0	1.9	0.2	0.6	2.3
Q3	0.7	1.7	0.3	0.9	1.1	0.3
Q4	0.7	0.8	0.3	0.2	0.2	−0.1
2004 Q1	1.0	2.5	−1.9	0.2	0.4	−0.1
Q2	1.0	3.1	0.8	0.3	−0.1	1.3
Q3	1.3	2.1	−1.5	0.2	0.5	−0.1
Q4	1.1	2.5	−0.1	0.7	0.3	0.8
2005 Q1	0.2	1.8	0.3	1.0	0.1	0.2
Q2	1.1	0.2	0.6	1.3	0.2	1.1
Q3	0.5	2.6	0.3	0.5	1.0	1.7
Percentage change, latest quarter on corresponding quarter of previous year						
2000 Q1	5.9	8.3	0.3	2.6	0.7	2.5
Q2	5.9	6.5	7.4	2.8	1.0	2.1
Q3	5.4	5.7	7.8	2.7	1.3	2.2
Q4	5.5	5.6	5.1	1.5	2.1	2.4
2001 Q1	6.3	3.5	5.4	2.6	2.4	3.5
Q2	6.5	2.3	7.1	2.6	4.7	7.0
Q3	6.6	1.4	3.3	2.1	4.3	8.6
Q4	6.5	0.5	1.0	3.3	3.8	9.3
2002 Q1	5.3	−0.4	−1.4	4.0	4.2	8.6
Q2	4.7	0.1	−6.1	3.8	2.0	4.8
Q3	3.8	1.0	−2.0	4.2	3.1	3.4
Q4	3.4	2.0	1.4	5.1	3.8	1.9
2003 Q1	3.5	2.4	6.1	2.6	3.7	1.6
Q2	4.3	2.8	7.0	2.6	4.0	3.7
Q3	4.6	3.6	5.7	3.2	3.8	3.6
Q4	4.1	3.6	5.6	2.2	2.8	3.6

Table 2 – *continued*

	Property rentals*	Real estate agency activities	Construction plant hire*	Market research	Technical testing	Employment agencies
SIC(2003)	70.2	70.3	71.32	74.13	74.3	74.5
Percentage change, latest quarter on corresponding quarter of previous year						
2004 Q1	4.3	6.0	0.5	1.5	2.2	2.3
Q2	3.4	8.3	−0.5	1.7	1.6	1.4
Q3	4.0	8.7	−2.3	0.9	1.0	1.0
Q4	4.4	10.5	−2.7	1.4	1.1	2.0
2005 Q1	3.6	9.8	−0.5	2.3	0.8	2.3
Q2	3.7	6.7	−0.7	3.2	1.1	2.1
Q3	2.9	7.2	1.2	3.5	1.5	3.9

	Property rentals*	Real estate agency activities	Construction plant hire*	Market research	Technical testing	Employment agencies

Table 2 – *continued*
Corporate Services Price Indices (Experimental) (2000=100)

	Security services	Industrial cleaning	Commercial film processing	Contract packaging	Direct marketing & secretarial services	Translation & interpretation services
SIC(2003)	74.60/2	74.7	74.81/9	74.82	74.83(pt)	74.83(pt)
2000 weights per cent						
Gross sector	2.03	2.41	0.16	0.60	0.34	0.05
Net sector	2.57	2.45	0.20	1.38	0.35	0.05
Annual						
2000	100.0	100.0	100.0	100.0	100.0	100.0
2001	104.4	101.1	99.9	101.8	101.2	99.6
2002	108.2	104.0	99.9	103.1	99.7	101.5
2003	113.8	106.9	103.4	109.3	100.4	102.6
2004	117.7	109.3	107.7	111.4	101.5	107.1
Percentage change, latest year on previous year						
2000	2.1	0.7	0.2	1.2	1.3	–0.2
2001	4.4	1.1	–0.1	1.8	1.2	–0.4
2002	3.6	2.9	0.0	1.3	–1.5	1.9
2003	5.2	2.7	3.5	6.0	0.7	1.1
2004	3.5	2.3	4.1	1.9	1.0	4.4
Quarterly results (not seasonally adjusted)						
2000 Q1	99.0	99.9	99.9	99.6	99.9	100.2
Q2	99.7	100.0	100.0	99.4	99.9	100.2
Q3	100.4	100.0	100.0	100.7	100.3	99.9
Q4	100.9	100.1	100.0	100.3	99.9	99.6
2001 Q1	102.1	99.9	100.0	101.1	100.6	99.7
Q2	103.8	100.6	100.1	101.3	101.5	99.7
Q3	105.4	100.9	99.8	102.3	101.3	99.4
Q4	106.3	103.1	99.8	102.4	101.5	99.5
2002 Q1	107.4	103.5	99.9	102.5	100.9	101.4
Q2	107.7	103.9	99.9	102.4	99.3	101.5
Q3	108.3	104.0	99.9	103.2	99.3	101.4
Q4	109.3	104.8	99.9	104.2	99.3	101.6
2003 Q1	111.8	105.6	100.1	105.0	99.7	102.3
Q2	113.0	105.8	99.5	109.7	99.6	102.7
Q3	114.2	107.8	105.4	110.9	100.9	102.7
Q4	116.2	108.3	108.8	111.6	101.5	102.7
2004 Q1	117.2	108.3	109.3	112.0	101.5	108.0
Q2	117.7	109.3	107.1	110.8	101.4	108.0
Q3	117.8	109.6	107.1	111.3	101.5	106.2
Q4	118.2	110.0	107.1	111.5	101.5	106.1
2005 Q1	119.6	110.7	105.7	120.5	101.0	106.2
Q2	120.4	110.9	105.9	120.6	102.2	106.2
Q3	122.2	110.9	106.0	121.5	102.7	106.2

Table 2 – *continued*

	Security services	Industrial cleaning	Commercial film processing	Contract packaging	Direct marketing & secretarial services	Translation & interpretation services
SIC(2003)	74.60/2	74.7	74.81/9	74.82	74.83(pt)	74.83(pt)
Percentage change, latest quarter on previous quarter						
2000 Q1	0.4	0.2	0.1	0.8	1.1	0.0
Q2	0.7	0.2	0.1	−0.2	0.0	0.0
Q3	0.7	0.0	0.0	1.3	0.5	−0.4
Q4	0.5	0.1	0.0	−0.4	−0.4	−0.2
2001 Q1	1.2	−0.2	0.0	0.8	0.7	0.0
Q2	1.7	0.7	0.0	0.2	0.9	0.0
Q3	1.5	0.3	−0.3	1.0	−0.2	−0.3
Q4	0.9	2.2	0.0	0.1	0.2	0.2
2002 Q1	1.0	0.4	0.2	0.1	−0.6	1.8
Q2	0.3	0.4	0.0	0.0	−1.6	0.1
Q3	0.5	0.1	0.0	0.8	−0.1	0.0
Q4	0.9	0.8	0.0	0.9	0.0	0.2
2003 Q1	2.3	0.8	0.1	0.8	0.4	0.6
Q2	1.0	0.2	−0.6	4.5	−0.1	0.5
Q3	1.1	1.8	6.0	1.0	1.3	0.0
Q4	1.8	0.5	3.2	0.6	0.6	0.0
2004 Q1	0.8	0.0	0.5	0.4	0.0	5.2
Q2	0.4	0.9	−2.0	−1.0	−0.1	0.0
Q3	0.2	0.3	0.0	0.5	0.0	−1.7
Q4	0.3	0.3	0.0	0.2	0.0	0.0
2005 Q1	1.1	0.6	−1.2	8.1	−0.5	0.0
Q2	0.7	0.2	0.2	0.1	1.2	0.0
Q3	1.5	0.1	0.1	0.8	0.4	0.0
Percentage change, latest quarter on corresponding quarter of previous year						
2000 Q1	1.7	1.0	0.1	0.7	2.2	0.1
Q2	2.1	0.9	0.1	0.6	0.4	0.0
Q3	2.3	0.5	0.2	1.9	1.5	−0.3
Q4	2.3	0.4	0.2	1.5	1.1	−0.6
2001 Q1	3.1	0.0	0.1	1.5	0.7	−0.6
Q2	4.2	0.5	0.1	1.9	1.7	−0.6
Q3	5.0	0.8	−0.3	1.6	1.0	−0.5
Q4	5.3	3.0	−0.3	2.1	1.6	−0.1
2002 Q1	5.2	3.6	−0.1	1.4	0.3	1.7
Q2	3.8	3.3	−0.1	1.1	−2.1	1.8
Q3	2.8	3.1	0.2	0.9	−2.0	2.1
Q4	2.9	1.7	0.2	1.7	−2.2	2.1
2003 Q1	4.1	2.1	0.1	2.5	−1.2	0.9
Q2	4.8	1.9	−0.5	7.1	0.3	1.3
Q3	5.4	3.7	5.4	7.4	1.7	1.3
Q4	6.3	3.3	8.8	7.1	2.3	1.1

Table 2 – *continued*

	Security services	Industrial cleaning	Commercial film processing	Contract packaging	Direct marketing & secretarial services	Translation & interpretation services
SIC(2003)	74.60/2	74.7	74.81/9	74.82	74.83(pt)	74.83(pt)
Percentage change, latest quarter on corresponding quarter of previous year						
2004 Q1	4.8	2.6	9.2	6.6	1.8	5.6
Q2	4.2	3.3	7.7	1.0	1.8	5.2
Q3	3.2	1.7	1.6	0.4	0.5	3.3
Q4	1.7	1.5	−1.6	0.0	−0.1	3.3
2005 Q1	2.0	2.1	−3.3	7.6	−0.6	−1.7
Q2	2.3	1.4	−1.1	8.9	0.8	−1.7
Q3	3.7	1.2	−1.0	9.2	1.2	0.0

Table 2 – *continued*
Corporate Services Price Indices (Experimental) (2000=100)

	Adult education	Sewerage services*	Waste disposal	Commercial washing & dry cleaning	TOP –LEVEL CSPI	
					Gross sector	Net sector
SIC(2003)	80.42	90.00/1	90.00/2	93.01		
2000 weights per cent						
Gross sector	1.57	2.33	1.47	0.69	100	
Net sector	1.59	4.14	2.61	0.70		100
Annual						
2000	100.0	100.0	100.0	100.0	100.0	100.0
2001	103.9	98.3	105.3	101.2	102.9	103.2
2002	106.8	99.1	111.3	102.0	105.1	105.3
2003	111.5	102.7	118.6	102.4	108.1	108.8
2004	117.4	108.8	124.1	104.7	110.6	111.4
Percentage change, latest year on previous year						
2000	2.3	–8.7	4.9	–0.3	0.2	1.8
2001	3.9	–1.7	5.3	1.2	2.9	3.2
2002	2.7	0.8	5.7	0.9	2.1	2.0
2003	4.5	3.7	6.5	0.3	2.9	3.4
2004	5.2	5.9	4.6	2.3	2.3	2.4
Quarterly results (not seasonally adjusted)						
2000 Q1	99.5	110.4	99.2	99.7	99.8	99.5
Q2	99.5	96.5	100.4	100.2	99.6	99.5
Q3	100.3	96.5	100.2	100.4	100.2	100.3
Q4	100.8	96.5	100.2	99.8	100.4	100.7
2001 Q1	101.4	96.5	101.8	100.3	101.4	101.8
Q2	104.6	98.9	104.7	101.1	102.9	103.4
Q3	104.6	98.9	106.8	101.2	103.5	103.7
Q4	105.1	98.9	107.9	102.0	103.8	104.1
2002 Q1	106.0	98.9	108.0	102.4	103.8	104.1
Q2	106.3	99.1	110.9	102.1	104.7	105.0
Q3	107.3	99.1	111.3	102.5	105.6	105.6
Q4	107.4	99.1	115.0	101.1	106.1	106.4
2003 Q1	108.1	99.1	115.7	102.4	106.6	107.2
Q2	110.3	104.0	119.8	102.2	108.1	108.8
Q3	112.9	104.0	119.4	102.2	108.7	109.3
Q4	114.8	104.0	119.5	102.7	109.2	109.9
2004 Q1	117.3	104.0	120.0	105.0	109.3	110.1
Q2	117.3	110.4	124.8	104.9	110.6	111.4
Q3	117.5	110.4	124.9	104.3	111.0	111.8
Q4	117.4	110.4	126.6	104.7	111.6	112.5
2005 Q1	117.5	110.4	126.1	104.8	112.3	113.4
Q2	118.5	125.1	136.7	105.3	113.6	115.1
Q3	118.7	125.1	141.8	105.7	114.5	116.0

Table 2 – *continued*

	Adult education	Sewerage services*	Waste disposal	Commercial washing & dry cleaning	TOP –LEVEL CSPI	
					Gross sector	Net sector
SIC(2003)	80.42	90.00/1	90.00/2	93.01		
Percentage change, latest quarter on previous quarter						
2000 Q1	1.2	0.0	3.0	0.6	0.4	0.8
Q2	0.1	−12.5	1.2	0.5	−0.3	0.0
Q3	0.8	0.0	−0.2	0.2	0.7	0.8
Q4	0.5	0.0	−0.1	−0.6	0.1	0.4
2001 Q1	0.7	0.0	1.6	0.5	1.0	1.1
Q2	3.1	2.5	2.9	0.8	1.5	1.6
Q3	0.0	0.0	2.0	0.1	0.5	0.2
Q4	0.5	0.0	1.0	0.8	0.3	0.4
2002 Q1	0.8	0.0	0.1	0.4	0.0	0.0
Q2	0.3	0.2	2.7	−0.2	0.9	0.9
Q3	0.9	0.0	0.3	0.4	0.8	0.6
Q4	0.1	0.0	3.3	−1.4	0.5	0.8
2003 Q1	0.6	0.0	0.6	1.3	0.5	0.8
Q2	2.1	4.9	3.6	−0.2	1.4	1.4
Q3	2.4	0.0	−0.3	0.0	0.6	0.5
Q4	1.6	0.0	0.0	0.5	0.4	0.5
2004 Q1	2.2	0.0	0.4	2.2	0.1	0.1
Q2	0.0	6.2	4.0	0.0	1.2	1.2
Q3	0.1	0.0	0.1	−0.6	0.3	0.4
Q4	−0.1	0.0	1.3	0.4	0.6	0.6
2005 Q1	0.1	0.0	−0.4	0.1	0.6	0.8
Q2	0.8	13.3	8.4	0.5	1.2	1.6
Q3	0.2	0.0	3.7	0.3	0.8	0.8
Percentage change, latest quarter on corresponding quarter of previous year						
2000 Q1	2.2	3.0	6.5	−0.3	−0.6	1.3
Q2	2.0	−12.5	5.1	−0.8	−0.3	1.5
Q3	2.5	−12.5	4.1	−0.7	0.9	2.2
Q4	2.5	−12.5	4.0	0.7	1.0	2.1
2001 Q1	2.0	−12.5	2.6	0.6	1.5	2.3
Q2	5.1	2.5	4.3	0.9	3.3	3.9
Q3	4.3	2.5	6.6	0.9	3.2	3.3
Q4	4.3	2.5	7.7	2.2	3.4	3.3
2002 Q1	4.5	2.5	6.1	2.1	2.4	2.2
Q2	1.7	0.2	5.9	1.0	1.8	1.5
Q3	2.6	0.2	4.2	1.3	2.0	1.9
Q4	2.2	0.2	6.6	−0.9	2.2	2.3
2003 Q1	2.0	0.2	7.1	0.0	2.7	3.0
Q2	3.8	4.9	7.9	0.1	3.2	3.6
Q3	5.3	4.9	7.3	−0.3	3.0	3.6
Q4	6.8	4.9	3.9	1.5	2.9	3.3

Table 2 – *continued*

	Adult education	Sewerage services*	Waste disposal	Commercial washing & dry cleaning	TOP –LEVEL CSPI	
					Gross sector	Net sector
SIC(2003)	80.42	90.00/1	90.00/2	93.01		
Percentage change, latest quarter on corresponding quarter of previous year						
2004 Q1	8.6	4.9	3.7	2.5	2.5	2.6
Q2	6.3	6.2	4.2	2.7	2.4	2.4
Q3	4.0	6.2	4.6	2.0	2.1	2.2
Q4	2.3	6.2	6.0	2.0	2.3	2.3
2005 Q1	0.2	6.2	5.1	−0.1	2.7	3.0
Q2	1.0	13.3	9.6	0.4	2.7	3.4
Q3	1.0	13.3	13.5	1.3	3.2	3.8

Table 2 – *continued*

Revisions to quarterly GDP growth and its production (output), expenditure and income components

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This article presents the results of the latest revisions analysis of Gross Domestic Product (GDP), updating the previous article published in January 2005. It analyses revisions to the estimates of quarterly GDP at different stages of the production process, and also presents conclusions of revisions analysis of the quarterly growth rates for the main components of the expenditure, production and income measures of GDP. More detailed analysis of the components can be found in the appendices to this article, available on the National Statistics website at: www.statistics.gov.uk/cci/article.asp?ID=1289.

Introduction

Many different aspects of quality can be used to assess GDP estimates. Reliability, for example, can be assessed by analysing revisions to growth rates of quarterly GDP. Revisions analysis measures the reliability of an early estimate in predicting the value of a later estimate. Revisions analysis does not measure accuracy, which relates to how close the estimate is to the underlying 'true' value. It is possible that a reliable estimate (in that it is revised only very slightly over time) could be very inaccurate (in its closeness to the underlying 'true' value), and *vice versa*.

Revisions analysis forms part of a wider programme of work being carried out to introduce Quality Reports to communicate quality information about estimates to users. Quality Reports provide information on different elements of quality (including reliability) and include both static and dynamic quality information specific to a release. More detail of the type of information included in Quality Reports is given in another article (Jenkinson, 2005).

Revisions to economic statistics can attract a great deal of attention, as addressed by the Statistics Commission Review of Revisions to Economic Statistics in April 2004. This concluded that, for most economic statistics, revisions are the norm and users expect revisions. The review made several recommendations that the Office for National Statistics (ONS) had already been working towards; these have been taken further since the review. Appendix A to this article contains a final update on the progress that has been made towards the recommendations contained in the review.

This article provides a summary of the analysis of revisions to quarterly GDP growth rates, and also to the components of the expenditure, production (or output) and income measures of GDP. For most of the analysis, seasonally adjusted and chained volume measures (or constant price) are used. For the income components of GDP, the analysis uses seasonally adjusted data but at current prices, not chained volume measures, due to the nature of how the data are collected and the difficulty of deflating the components. The detailed analyses of revisions to the components are available in the Appendices, available on the National Statistics website at: www.statistics.gov.uk/cci/article.asp?ID=1289.

Key findings

■ The initial estimate of quarterly GDP growth was, on average, 0.18 percentage points below the latest estimate. This is statistically significant.

■ Within the compilation process for GDP, the largest revision occurred at the post Blue Book 2 (BB2) stage with a mean revision of 0.10, which is statistically significant. Mean revisions for other stages of the production process were small and not statistically significant.

■ For the expenditure components, Gross Fixed Capital Formation (GFCF) has the largest mean revision at 1.42 percentage points, which is statistically significant, despite the large variance of the revisions. This has a similar impact on GDP as the mean revision to Household Final Consumption Expenditure (HHFCE) of 0.01 because of each component's relative proportion of GDP. The mean revision to HHFCE is not statistically significant.

■ Total Imports and Total Exports are the only other expenditure components with statistically significant mean revisions at 0.71 and 0.70 percentage points respectively. Since exports are added to GDP and imports deducted, if the revisions follow the same trend as indicated then the impact on GDP of revisions to net trade (exports less imports) is not as great as if the components are considered separately.

■ None of the output components had statistically significant mean revisions. Agriculture has the largest mean revision at 0.58 but this has a small impact on GDP as it makes up a low proportion. Conversely, Total Services has the smallest mean revision but it has the biggest impact on GDP since it makes up a large proportion.

■ Within Total Services, none of the mean revisions for any of the components are statistically significant, both overall and at each stage of the production process.

■ None of the income components had statistically significant mean revisions. Financial Corporations has the largest mean revision at 39.23 but this is not statistically significant due to the high variance of the revisions. This large mean revision is driven mainly by revisions to one particular quarter; when this quarter is taken out of the analysis the mean revision falls to 4.98 percentage points.

■ Across all of the income components, Compensation of Employees and Taxes on Products *less* Subsidies have the smallest mean revisions and the initial estimates for these series are much better predictors for the latest values than the other components.

Methodology

The production of quarterly GDP in the UK follows a number of stages. The main stages of the production process are outlined below, with the estimate of actual data available at each stage taken from another *Economic Trends* article (Skipper, 2005).

■ *Month 1 (M1)* – the first estimate of GDP quarterly growth is published around 25 days after the end of the

quarter in the *GDP Preliminary Estimate* First Release. This preliminary estimate is based on 44 per cent 'actual' data. The rest is based on projections using a variety of modelling techniques. The data content varies by industry; for the service industries estimates are based on 39 per cent actual data, for the production industries the figure is 73 per cent and for the construction industry 0 per cent.

■ *Month 2 (M2)* – the second estimate is published around 55 days after the end of the quarter in the *UK Output, Income and Expenditure* First Release. In this release, ONS improves on the preliminary estimate by including more complete output data, as well as early information on GDP measured by the expenditure and income measures. At this point the output measure of GDP is based upon 67 per cent of actual data and is thought to be the best measure of growth in the short-term.

■ *Month 3 (M3)* – the third estimate is published around 85 days after the end of the quarter in the *Quarterly National Accounts* First Release. In this release, ONS produces a full set of quarterly economic accounts, updating and expanding the information made available in the earlier estimate as well as updating estimates for earlier quarters in the current year and normally the previous year. Fuller survey data for components of each of the expenditure, output and income measures are available. At this point the output measure of GDP is based upon 80 per cent of actual data and again is taken to be the best estimate of short-term growth.

■ *Blue Books (BB)* – annual GDP estimates are published in the *Blue Book*, usually in June or September. The quarterly data are updated again during the production of the first and second estimates of annual GDP, as data from new and more comprehensive annual data sources become available. The second time an annual estimate is published in the *Blue Book*, Input-Output Supply and Use balancing is applied to the estimate for the first time. The Input-Output Supply and Use balancing is re-run in subsequent Blue Books using additional benchmark data. Further methodological improvements may also be made during the publication of Blue Books.

In this article revisions to quarterly GDP growth rates are analysed over the periods between:

■ M1 and M3

■ M3 and BB1 (the first time an annual estimate is published)

■ BB1 and BB2 (the second time an annual estimate is published)

■ BB2 and the latest estimate (post BB2)

For the analysis of quarterly GDP growth rates, the time series used runs from the first quarter of 1993 (Q1) to the final quarter of 2002 (Q4). 1993 was the first year that the preliminary (M1) estimate of GDP was published. Taking the analysis only as far as the final quarter of 2002 ensures that all the estimates have had at least three years to mature and have all been through two Blue Books.

Data in this article are comparable to the data used in the revisions analysis in GDP First Releases *(GDP Preliminary Release, UK Output Income and Expenditure, UK Quarterly National Accounts)* but the analysis is carried out over different time periods and so the summary statistics will not be the same. In addition, in this article revisions are analysed in relation to the stages of the compilation process as outlined above, using Blue Books as key markers. The analysis in First Releases uses different stages to break up the revisions to be consistent with the analysis in other First Releases.

The main part of the analysis is to apply a statistical test to the mean revisions to see if they are significantly different from zero, by comparing the mean revision with the variability of the revisions (see Box 1 for further details). The outcome of the test gives an indication of whether the revisions pattern may have occurred by chance rather than due to a systematic over or under estimation of earlier estimates. The significance test in this article is based on the assumption that the revisions are normally distributed. A Jarque-Bera statistical test can be used to check the suitability of a normal distribution. For GDP quarterly growth rates, the Jarque-Bera test gives a p-value of 0.72 and the hypothesis that the data are normally distributed cannot be rejected. So a t-test is appropriate to assess the significance of the revisions. Graphs and other summary statistics are also used in the analysis to further break down the revisions.

Revisions analysis of quarterly GDP growth

Figure 1 shows revisions to quarterly GDP growth rates between the first quarter of 1993 (Q1) and the last quarter of 2002 (Q4). It shows that the preliminary estimates (M1) have been revised in both directions with all revisions lying between –0.4 and 1.0 percentage points. It can be seen that it is more common for the preliminary estimate to be revised up rather than down over the given time period.

Figure 2 shows revisions according to the different stage in the production process at which they occur. Although for some quarters revisions are cumulative, it shows that in most cases revisions can be made in different directions at each stage of the production process and so can offset each other to an

Box 1

Testing for significance in revisions

Revisions to a series are considered to be significant if the mean revision is statistically different from zero. A t-test is performed on the time series of revisions at different stages of production to test for significance. There are some difficulties with using a standard t-test for the mean revision, since it assumes that the revisions are independent of each other. This assumption is not true for a time series because revisions made in one period may be related to revisions made in previous periods.

To overcome this, the association of the revisions between successive time periods is studied through calculating the serial correlation of the revisions. When the correlation is positive, a modified t-statistic is used and where the correlation is negative a standard t-test can still be used.

The modified t-statistic used corrects for the lack of independence indicated by the correlation by making an adjustment to the estimate of the variability of the revisions. A technical description of the modified t-statistic and its calculation is given in another *Economic Trends* article (Jenkinson, 2004). The modified t-test is an approximate method, which has been developed to provide an indication of the significance of the revisions.

It should be noted that when the t-test is applied to the revisions, it takes account of the variability of the series of revisions itself. So it could happen that the mean revision is statistically significant, but the revisions are small in relation to the time series itself. In that case, the mean could be statistically significant but the revisions not necessarily economically significant.

extent. While for the series as a whole the largest revisions have occurred post BB2, this trend does not appear to have followed through as starkly for the quarters after 2000 Q4.

This is because revisions that were made in Blue Book 2003 as a result of various methodological changes will appear in the 'post BB2' stage for quarters in 1993 to 2000, but will appear

Figure 1

Total revisions to quarterly GDP growth, 1993Q1 to 2002Q4

Revisions by stage to quarterly GDP growth, 1993Q1 to 2002Q4

■ Revision M1 - M3   ■ Revision M3 - BB1   ■ Revisions BB1 - BB2   ◻ Revisions since BB2   ● Total Revisions
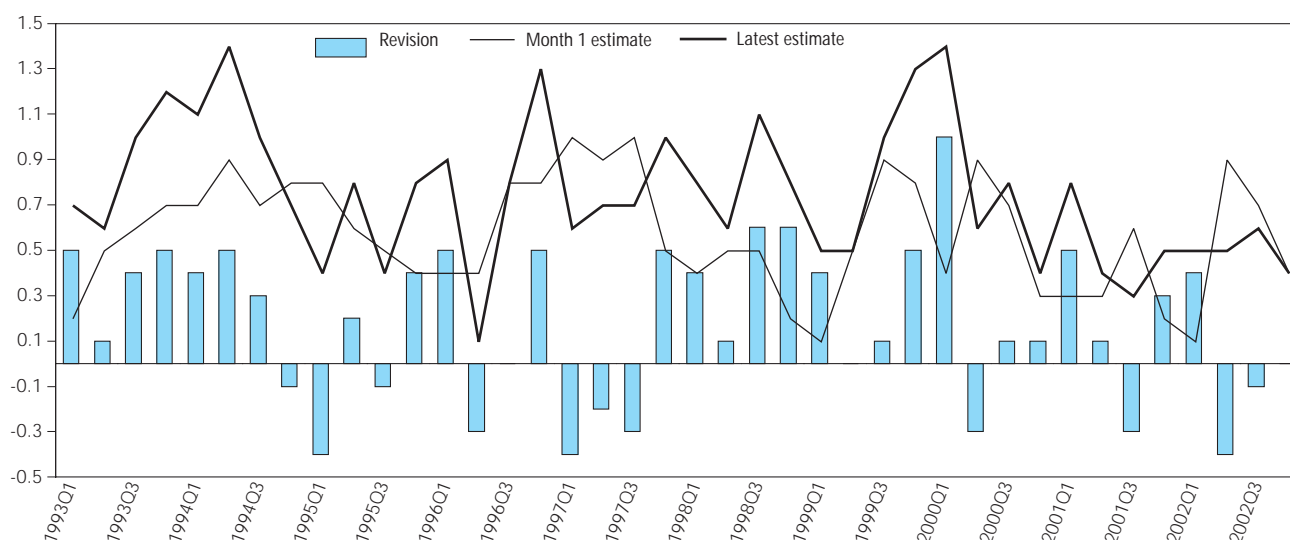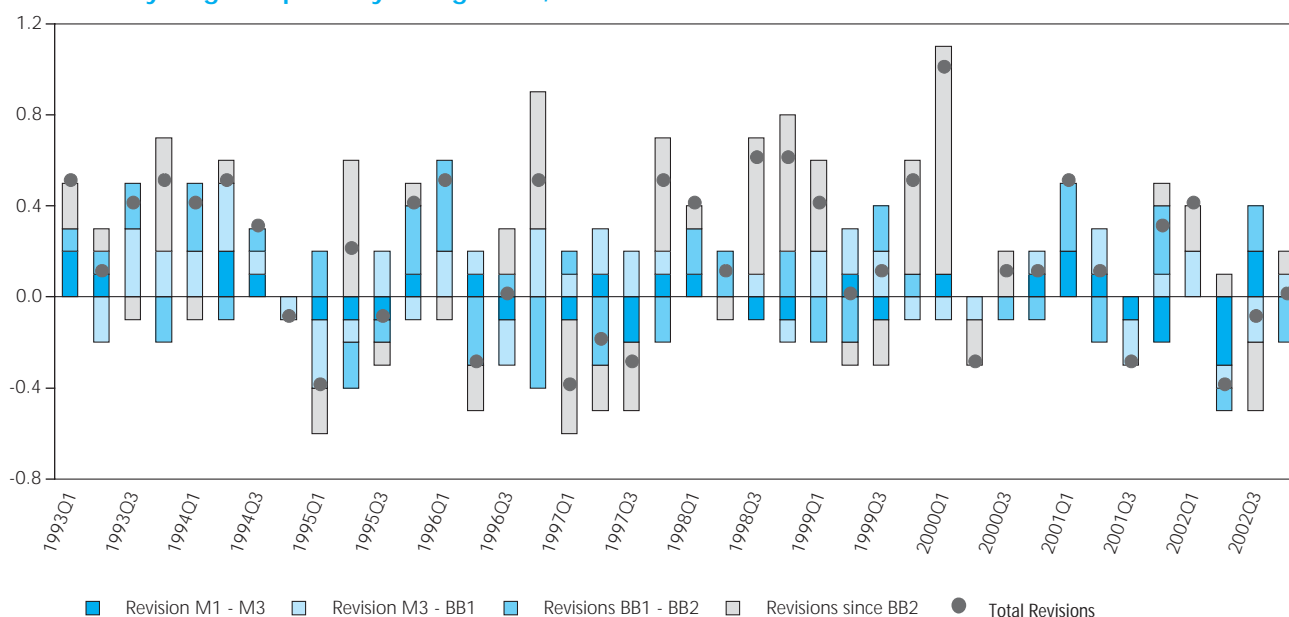
Table 1

Summary statistics for revisions by stage to quarterly GDP growth, 1993Q1 to 2002Q4

1993 Q1– 2002Q4	Mean revision	Mean abs revision	Variance	t-test used	t-stat
Revisions between M1 and M3	0.01	0.09	0.01	Standard	0.41
Revisions between M3 and BB1	0.05	0.15	0.03	Adjusted	1.86
Revisions between BB1 and BB2	0.02	0.16	0.04	Standard	0.57
Revisions since BB2	0.10	0.25	0.10	Standard	2.03*
Total revisions	0.18	0.32	0.12	Adjusted	3.01*

shows the t-test comparing the mean revision to zero is significant .

Figure 3

Mean revisions by stage to quarterly GDP growth, 1993Q1 to 2002Q4

in the stage 'BB1–BB2' for quarters in 2001 and 'M3–BB1' for quarters in 2002.

Table 1 provides more information about revisions at different stages of the production process. It gives detail on the mean revision, the mean absolute revision and the variance of the revisions at each stage. It also gives information on which t-test has been used and the results of the t-test.

It supports the general trend seen in Figure 2 – that the largest revisions have occurred post BB2. The table shows that the post BB2 revisions are significant, though it is worth noting that the t-statistic is only slightly larger than the critical t value which it has to exceed to indicate significance. The mean revisions for all the other stages before BB2 are not significant. The overall mean revision from the earliest estimate to the latest one is significant; over the period 1993 Q1 to 2002 Q4, M1 estimates of GDP growth underestimated the latest estimate for the quarter by 0.18 percentage points on average.

More information on the pattern of revisions can be gained from considering the mean absolute revision alongside the mean revision. In the case of revisions between BB1 and BB2 this is evident, since the mean revision looks small at 0.02 whereas the mean absolute revision is comparatively larger at 0.16 percentage points. This shows that the revisions at this stage are relatively large but are made in opposite directions and over time offset one another (illustrated in Figure 2).

Figure 3 shows the mean revisions to quarterly GDP growth and illustrates that the mean revisions for every stage of the GDP process are positive. It also shows that the two stages with the largest mean revisions are between M3 and BB1 and revisions since BB2.

Although the overall mean revision is statistically significant, it should be noted that this is still less than 0.2 percentage points.

Approaches to measuring GDP

GDP can be measured using three theoretical approaches:

- expenditure

- production (or output)

- income

The expenditure approach measures the total expenditure on all finished goods and services produced within the economy; the production (or output) approach measures the sum of the value added created through the production of goods and services within the economy; the income approach measures the total income generated by the production of goods and services in the economy.

The components of each approach to measuring GDP are estimated through sample surveys and administrative sources. In the short run, forecasts and models are used to estimate growth for the later months of the quarter, for which data have not yet been collected. In the long run these forecasts are replaced with the actual data when it becomes available. A single estimate is then derived through a balancing process and published as the official estimate of GDP (see Box 2 for more information on the balancing process).

estimate of growth in the short term due to the availability of data. The alignment adjustment is applied to the component of the accounts which is the most difficult to measure. It is applied to the series 'changes in inventories' (on the expenditure side) and 'gross operating surplus of non-financial private corporations' (on the income side).

The size of these alignment adjustments is one measure of the coherence of the accounts, and is published in the Quarterly National Accounts release. These alignment adjustments sum to zero annually as output is not thought to be the best estimate of annual growth, contradictory to the short-term.

Further detail on the balancing process can be found in the UK ESA95 Gross National Income Inventory of Methods, by referring to the balancing chapter. See: www.statistics.gov.uk/statbase/product.asp?vlnk=6392.

Due to historical reasons and availability of data the analyses of revisions to the quarterly growth rates for the components of each of the three measures could not be carried out in all cases for consistent time periods. Details of the time periods used for each of the three approaches and any exceptions are given in Box 3.

Box 2

Balancing process

The three different measures of GDP – expenditure, production (output) and income – should in theory be equal as they are different methods of measuring the same activity in the economy. However due to difficulties with availability of data and the extent to which the data sources capture the activity in the economy, this is often not the case.

The three measures become coherent in the long-term through the use of a supply-use framework. This enables differences between the estimates of supply and use of specific products to be investigated, and the accounts adjusted accordingly to ensure a balance. Further information on the supply-use framework is available on the National Statistics website at: www.statistics.gov.uk/CCI/nugget.asp?ID=179.

In the short run, there are not enough data available to produce a full supply-use balancing table. The first step in increasing the coherence of the raw data received is adjustment for quality by National Accounts experts following comprehensive analysis and investigation of possible incoherences.

Estimates of quarterly growth from the expenditure and income sides are brought into line with the estimate measured from the production (output) approach using an alignment adjustment. The estimate measured using the production (output) approach is taken to be the best

Box 3

Data and time series

Expenditure – For expenditure components, data on revisions on a consistent basis are only available in most cases from 1996, so the analysis covers the period 1996Q1 to 2002Q4. The exception to this is the final consumption expenditure of non-profit institutions serving households (NPISH) which is only available as a separate series from 1998Q3. Expenditure components are first released at M2 and so for this analysis the first revisions period investigated will be M2 to M3 rather than M1 to M3.

Production (Output) – For output components data are only available from 1996, so the analysis covers the period 1996Q1 to 2002Q4. For all of the four main output components, M2 estimates are available from 1998Q4 onwards and for Total Services, M1 estimates are available from 1998Q4 onwards. This is reflected in the first revisions period analysed which is M1 to M3 for Total Services but M2 to M3 for the other components.

Income – For income components data are only available from 1998Q2, so the analysis covers the period 1998Q2 to 2002Q4. Some of the income components are first released at M2 – Compensation of Employees (CoE), Other income, Taxes on Products *less* Subsidies – for which data are available from 1998Q3 and the first revisions period analysed is M2 to M3. For the other income components – Public Non-Financial Corporations, Private Non-Financial Corporations and Financial Corporations – the first release is at M3, so the first revisions period analysed is M3 to BB1.

Expenditure components

The expenditure measure of GDP calculates the total expenditure on final demand for UK produced goods and services (also described as total domestic expenditure (TDE), adjusted for trade). It is broken down into categories according to the purchaser and product. The main components (and their percentage of GDP in 2002) are:

■ HHFCE (63.7 per cent) – household final consumption expenditure

■ NPISH (2.5 per cent) – final consumption expenditure by non-profit institutions serving households

■ GGFCE (20.1 per cent) – general government final consumption expenditure

■ GFCF (16.5 per cent) – gross fixed capital formation

■ Changes in inventories (0.3 per cent)

■ and Exports (26.2 per cent).

■ Imports of foreign-produced goods and services are then deducted (–29.2 per cent).

For the analysis of expenditure components, estimates for the quarters from 1996 Q1 to 2002 Q4 are used with the exceptions already noted in Box 3.

Table 2 shows summary statistics for the revisions to growth rates of components of the expenditure measure of GDP, and Figure 4 shows the mean revisions in a bar chart. Revisions to growth rates of changes in inventories are not included. Analysis of growth rates to changes in inventories would not be meaningful because the underlying estimate is a flow estimate and is published as levels rather than growth. Revisions analysis of levels of changes in inventories is summarised at the end of this section, but it should be noted that this analysis considers levels whereas for the other expenditure components it looks at growth so they are not directly comparable.

It can be seen from Figure 4 that the largest mean revision is to GFCF of 1.42. Table 2 shows that this mean revision for

Figure 4
Mean revisions of GDP(E) components, 1996Q1 to 2002Q4
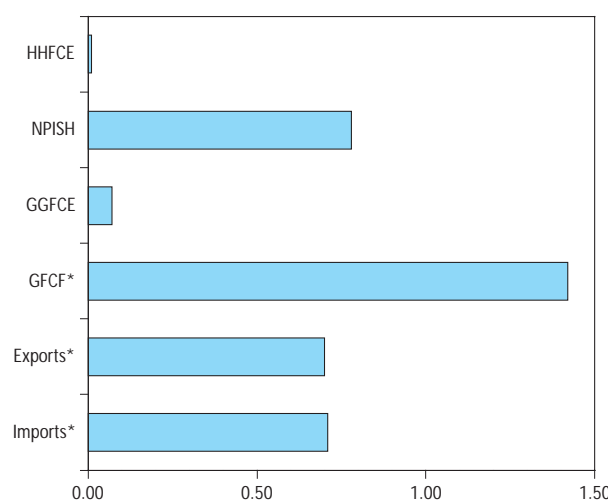
GFCF is significant, despite the high variance of revisions shown in the table. Though it is worth noting that the t-statistic is only just larger than the critical t value which it has to exceed to indicate significance. Table 2 also shows that Total Exports and Total Imports have significant overall mean revisions.

There are two further diagnostic statistics in Table 2 which provide us with more information on the revisions to the expenditure components. Firstly, the mean absolute relative revision is the mean absolute revision divided by the latest estimate of the mean absolute growth rate. This can give an indication of the relative impact of the revision on the growth rates. It shows that the revisions to GFCF are relatively large, followed by revisions to NPISH and GGFCE. Secondly, the mean squared error (MSE) is a measure that combines the mean revision and the dispersion of the revisions. So, in general a small MSE means the component is a better estimator of the final value than if it had a larger MSE. Table 2 shows GFCF with the largest MSE and HHFCE with the smallest.

Table 2
Summary statistics for revisions to main components of GDP(E), 1996Q1 to 2002Q4

Component	Per cent of GDP (based on 2002) values	Mean revision	Mean abs revision	Variance	Mean absolute relative revision	Mean Squared Error (MSE)
HHFCE	63.7	0.01	0.47	0.34	0.50	0.34
NPISH	2.5	0.78	1.38	1.79	0.79	1.79
GGFCE	20.1	0.07	0.81	1.05	0.78	1.06
GFCF	16.5	1.42*	2.21	6.24	1.20	8.25
Exports	26.2	0.70*	1.21	1.65	0.66	2.14
Imports	–29.2	0.71*	1.16	1.42	0.60	1.92
Inventories	0.3	n/a	n/a	n/a	0.75	n/a

* shows the t-test comparing the mean revision to zero is significant.

Figure 5 shows the impact that revisions to different expenditure components have on revisions to GDP. The mean absolute revision for each component is plotted against its proportion of GDP. In order to assess the relative impact of these revisions on GDP, it is useful to draw a line on the graph to represent an equation of the form:

Constant = proportion of GDP * mean abs revision

In this case, the constant used is the mean of the above equation for the expenditure components. The line can be used to compare the impact of the revisions on GDP: if the component lies on the line it has the same impact as another component also on the line. Components above the line have a larger impact on GDP than components below the line.

Figure 5 shows that none of the components lie on this line. However, some information can be gained from the location of the observations on the graph. Although the absolute mean revision to HHFCE is smaller than that for GFCF, Total Imports and Total Exports, it has a similar impact on GDP since its proportion of GDP is higher. It also shows that despite NPISH having the second largest mean absolute revision, this has a low impact on GDP because the proportion of GDP is so small.

Figure 5
Impact chart of GDP(E) components – mean absolute revision and proportion of GDP
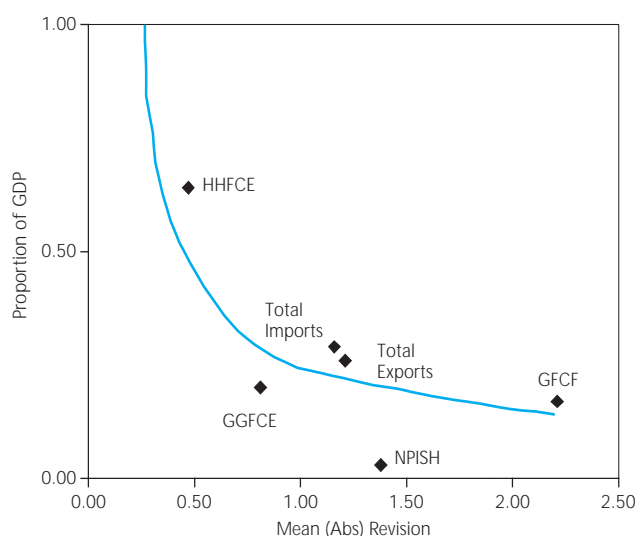

Summary of revisions to expenditure components

Analysis of revisions to quarterly growth in the expenditure components of GDP is contained in Appendix B, available at: www.statistics.gov.uk/cci/article.asp?ID=1289.

A summary of the results is presented here.

HHFCE: Mean revisions are small compared to some of the other components of expenditure and are not statistically significant at any stages of the production process. Revisions tend to be negative between M2 and M3 and since BB2; and positive for M3 to BB1 and BB1 to BB2. The overall mean revision is small at 0.01 percentage points and is not statistically significant.

NPISH: None of the mean revisions for different stages of the production process are statistically significant. NPISH has the second largest mean revision of all the expenditure components but is not statistically significant due to the large variance of the revisions.

GGFCE: Mean revisions are small compared to some of the other components of expenditure and are not statistically significant at any stages of the production process, due to the large variance of the revisions. Despite this, in just under a third of the quarters studied, the revision has caused the latest estimate to have a different sign from the M2 estimate, changing the pattern of growth. The total mean revision is small at 0.07 percentage points and is not statistically significant.

GFCF: The largest revision amongst the expenditure components occurred within GFCF of over 8 percentage points in 2002Q2. Revisions to GFCF are large and very variable. In just over 40 per cent of the quarters studied the revision has caused the latest estimate to have a different sign from the M2 estimate, changing the pattern of growth. Despite having the largest variances of all the expenditure components, the mean revision between M2 and M3 is statistically significant, as is the mean total revision of 1.42.

Changes in inventories: The mean revision is largest between BB1 and BB2 and is statistically significant at 469.9 but it should be noted that this cannot be compared with the other expenditure components since the revisions analysis here is considering levels not growths. Mean revisions at the other production stages, and the overall mean revision are not statistically significant.

Total Exports: Revisions have been positive, on average, for all stages of the production process. The mean revision is statistically significant between M3 and BB1 and also for the total revision.

Total Imports: The pattern of revisions is similar to Total Exports. Mean revisions are significant between M3 and BB1, and BB1 and BB2. The total revisions are significant at 0.71 percentage points.

Since Total Exports and Total Imports showed significant revisions, further analysis has been carried out on the components which make up these two series – exports of goods, exports of services, imports of goods and imports of services. The analysis showed that for all components of exports and imports, none of the mean revisions were significant either by stage or overall. It also indicated to a certain extent that revisions to imports and exports can follow the same trend. The two series are linked in this way because the same data sources are used to derive both estimates and the methodologies are linked. Since exports are added to GDP and imports deducted, if the revisions of both follow the same trend then the impact on GDP may not be as great as shown in Figure 5. This conclusion is supported by an article analysing revisions to quarterly current account balance of payments data (Turner, 2005) which was also published in *Economic Trends*.

Production (output) components

The production (or output) measure of GDP (GDP(P) or O) is calculated by aggregating the total gross value added (GVA) in the economy. It is defined as the sum of the value added of all the economic activities that produce goods and services. The value added by an economic activity is defined as the total output (usually sales or turnover) of the activity less the inputs of other economic activities required to produce this output.

In theory, GDP(O) should be measured by deducting inputs from outputs but this is not practical for short-term measurement. Instead the recommended approach (for marketed output) is generally to use deflated turnover as a proxy. Recent improvements in the sources and methods resulting from the Index of Services development project have increased the usage of deflated turnover in GDP(O). Other types of indicators used as proxies for gross value added include: volume measures (physical measures of output), measures of usage of inputs and the cost-weighted output indices used to estimate health service output.

The main industrial categories (and their percentage of GVA in 2002) are:

- Agriculture, forestry and fishing (1.0 per cent) – hereafter termed as 'Agriculture'

- Total Production (20.1 per cent) – includes manufacturing, mining and quarrying, and electricity, gas and water supply

- Construction (5.9 per cent)

- Total Services (73.0 per cent)

The components of Total Services (and their percentage of GVA in 2002) are:

- Distribution, hotels and catering (15.7 per cent)

- Transport, storage and communication (8.0 per cent)

- Business services and finance (26.4 per cent)

- Government and other services (22.9 per cent)

For the analysis of production (output) components, estimates for the quarters from 1996Q1 to 2002Q4 are used with the exceptions already noted in Box 3.

Table 3 shows summary statistics for the revisions to growth rates for each of the industrial categories, and Figure 6 graphs the mean revisions in a bar chart.

Figure 6 clearly shows that the largest mean revision is to Agriculture of 0.58 percentage points. For Agriculture, Table 3 shows that the mean absolute relative revision and MSE are especially high; but due to the large variance of the revisions at 12.85, the mean revision is not statistically significant. Table 3 also shows that none of the other main industrial sectors have significant mean revisions.

Figure 7 shows the impact of revisions different industrial sectors have on GDP(O) (see Figure 5 for an explanation).

Figure 7 shows that despite Agriculture having the highest mean absolute revision, it has a low impact on GVA because it does not make up a high proportion. In contrast, Total Services has the smallest mean absolute revision of the four main industrial sectors but the impact is much higher, due to its large weight in GVA.

Figure 6

Mean revisions to main industrial sectors of GDP(O), 1996Q1 to 2002Q4

Table 3

Summary statistics for revisions to main industrial sectors of GDP(O), 1996Q1 to 2002Q4

Component	Per cent on GVA (based on 2002 values)	Mean revision	Mean absolute revision	Variance	Mean absolute relative revision	Mean squared Error (MSE)
Agriculture	1.0	0.58	2.40	12.85	1.27	13.19
Total Production	20.1	0.13	0.57	0.47	1.05	0.49
Construction	5.9	0.17	0.83	1.15	0.74	1.18
Total Services	73.0	0.12	0.33	0.18	0.36	0.19

*shows the t-test comparing the mean revision to zero is significant.

Impact chart of GDP(O) components – mean absolute revision and proportion of GVA
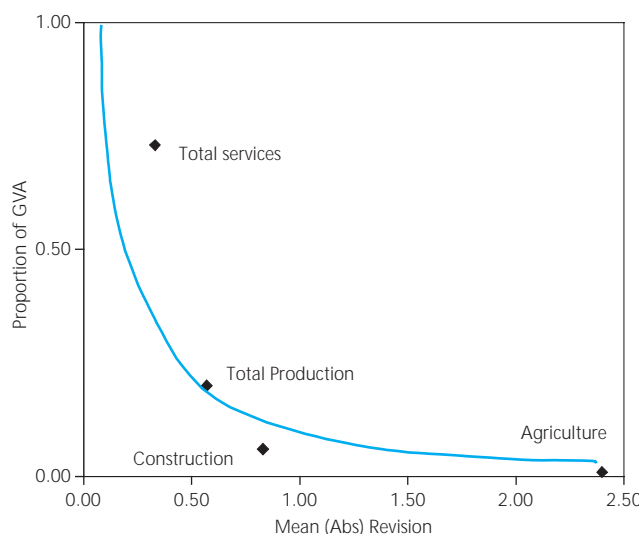
Summary of revisions to Production (Output) components

Analysis of revisions to quarterly growth in the production (output) components is contained in Appendix C available at: www.statistics.gov.uk/cci/article.asp?ID=1289

A summary of the results is presented here.

Agriculture: Mean revisions at different stages of the production process are amongst the largest for the output components. Revisions are also variable and are often made in different directions giving comparatively larger mean absolute revisions. This results in none of the mean revisions being significant.

Total Production: Mean revisions for different stages of the production process are small, particularly those for M2 to M3. The actual revisions made are in some cases much larger than the mean revisions since they are made in opposite directions for different time periods. None of the mean revisions for stages of the production process are statistically significant.

Construction: None of the mean revisions for different stages of the production process are statistically significant. The largest revisions are made between M2 and M3, and are considerably greater than that for the other stages. However,

due to the large variance of revisions between M2 and M3, the mean revision is not statistically significant.

Total Services: In general mean revisions are small at each stage of the production process. In all cases, the mean absolute revisions are comparatively larger since revisions are made in opposite directions for different time periods. This is illustrated for revisions between BB1 and BB2 where the mean revision is 0.0 percentage points but the mean absolute revision is 0.2 percentage points. The only stage at which the mean revision is statistically significant is between M3 and BB1 at 0.07 percentage points. Although this is a small mean revision, the variance is very low resulting in significance.

Total Services sub-components

Since Total Services account for such a large proportion of GVA (73.0 per cent in 2002) there is merit in analysing revisions to the sub-components of the services sector.

Table 4 shows summary statistics for the revisions to growth rates of components of the services sector, and Figure 8 graphs the mean revisions in a bar chart.

Figure 8 shows that the largest mean revisions of 0.26 occurred in both Distribution, hotels and catering and Transport, storage and communications. Of these two, Table 4 shows that Transport, storage and communications has the more variable revisions and according to the MSE is the worse predictor of the final estimate. None of the mean revisions to components of Total Services are statistically significant.

Mean revisions to main components of Total Services, 1996Q1 to 2002Q4
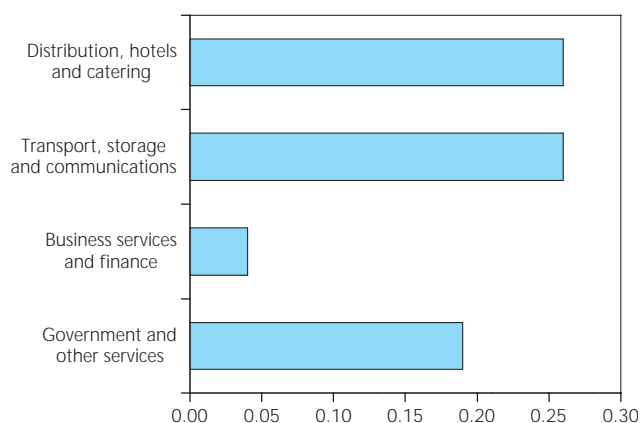
Summary statistics for revisions to main sub-components of Total Services, 1996Q1 to 2002Q4

Component	Per cent of Total Services (based on 2002 values)	Mean revision	Mean absolute revision	Variance	Mean absolute relative revision	Mean Squared Error (MSE)
Distribution, hotels and catering	*21.5*	0.26	0.63	0.54	0.68	0.60
Transport, storage and communications	*10.9*	0.26	0.94	1.43	0.57	1.49
Business services and finance	*36.1*	0.04	0.55	0.50	0.49	0.50
Government and other services	*31.4*	0.19	0.37	0.19	0.59	0.23

shows the t-test comparing the mean revision to zero is significant .

Figure 9 shows the impact that revisions to different components of Total Services have on GDP(O) (see Figure 5 for an explanation).

Impact chart of Total Services components on GDP(O) – mean absolute revision and proportion of GVA

Proportion of GVA
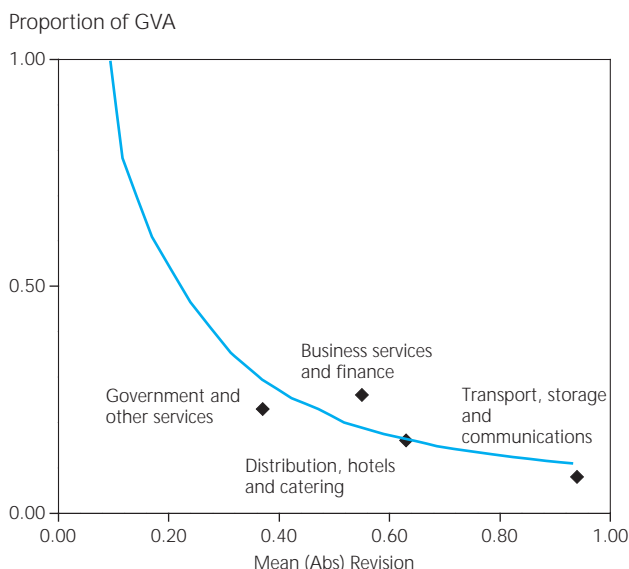
Figure 9 shows that despite transport, storage and communications having the highest mean absolute revision, it has a low impact on GVA because it does not make up a high proportion. In contrast, a lower mean absolute revision for business services and finance has a greater impact on GDP due to its weight within GVA.

Summary of revisions to sub-components of Total Services

Analysis of revisions to quarterly growth in the sub-components of Total Services is contained in Appendix D available at: www.statistics.gov.uk/cci/article.asp?ID=1289. A summary of the results is presented here.

Distribution, hotels and catering: None of the mean revisions are significant and in general are relatively small. However in some cases they have changed the pattern of growth, markedly so for two quarters. The largest revisions are a result of the implementation of the Index of Services (IoS) development programme in BB 2003.

Transport, storage and communication: The early estimates predict the trend of the latest estimate well, with only two clear exceptions. The mean revisions are all quite small and none are statistically significant.

Business services and finance: Early estimates appear to pick up the trend of latest estimates well, in particular where there is negative growth in two of the quarters analysed. The mean revisions are very small and none are statistically significant. The mean absolute revisions are relatively larger, suggesting that revisions are made in opposite directions which offset each other.

Government and other services: The mean revisions at each stage of the production process are fairly small and none are statistically significant. However there are some instances where revisions have dramatically changed the M3 estimates. Reasons for the largest revisions include improvements to the government health output indicator and to a lesser extent reclassification of NHS Trusts in BB2004. Also at BB2004 was the implementation of industry reviews of private education and recreation services, which caused revisions back to 2001Q1. For most quarters analysed, these revisions will appear in the 'since BB2' stage but for later quarters the revisions will show in earlier stages. For example revisions as a result of BB2003 would be classified as 'since BB2' for a quarter in 1999 whereas they would come under 'BB1 to BB2' for quarters in 2001 and 'M3 to BB1' for quarters in 2002.

Income components

The income approach of GDP measures the total income generated by the production of goods and services within the economy. It is broken down into categories according to who has earned the income. The main components (and their percentage of GDP in 2002) are:

■ *Compensation of Employees* (56.1 per cent) – primarily made up of wages and salaries

■ *Public Corporations* (0.6 per cent) – gross operating surplus of Public Non-Financial Corporations

■ *Private Corporations* (18.2 per cent) – gross operating surplus of Private Non-Financial Corporations

■ *Financial Corporations* (2.9 per cent) – gross operating surplus of Financial Corporations

■ *Other income* (9.3 per cent) – includes Mixed Income which covers the income of the self-employed.

■ *Taxes on products* less *subsidies* (12.9 per cent)

Where gross operating surplus is made up of gross trading profits, rental and appreciation of stocks.

For the analysis of income components, estimates for the quarters from 1998 Q2 to 2002 Q4 are used with exceptions already noted in Box 3. For the income components the analysis uses seasonally adjusted data but it is at current prices, not chained volume measures, due to the nature of how the data are collected.

Table 5 shows summary statistics for the revisions to growth expenditure rates of components of the income measure of GDP, and Figure 10 graphs the mean revisions in a bar chart.

It can be seen from Figure 10 that the largest mean revision is to Financial Corporations of 39.23 percentage points. Despite this very high value, Table 5 shows that the mean revision is not significant. The underlying reason behind this is the much larger variance of the revisions. The large mean revision for Financial Corporations is being driven mainly by revisions to one quarter, 2001Q1. Reasons for these revisions are explored in appendix E and summarised later in this section. If this quarter is removed from the analysis, the mean revision
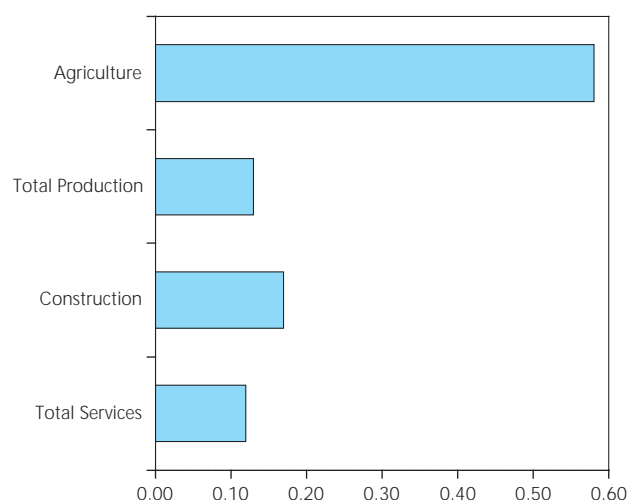
Table 5
Summary statistics for revisions to main components of GDP(I), 1998Q2 to 2002Q4

Component	Per cent GDP (based on 2002 values)	Mean revision	Mean absolute revision	Variance	Mean absolute relative revision	Mean Squared Error (MSE)
Compensation of employees	56.1	0.23	0.37	0.22	0.24	0.27
Public non-financial corporations	0.6	−3.48	5.97	75.97	1.23	88.08
Private non-financial corporations	18.2	0.12	3.35	18.21	1.65	18.23
Financial Corporations	2.9	39.23	85.22	26,718.51	1.02	28,257.47
Other income	9.3	−1.28	5.78	53.20	1.14	54.83
Taxes on products less subsidies	12.9	0.07	1.35	2.56	0.97	2.56

Figure 10
Mean revisions of GDP(I) components, 1998Q2 to 2002Q4

Figure 11
Impact chart of GDP(I) components – mean absolute revision and proportion of GDP
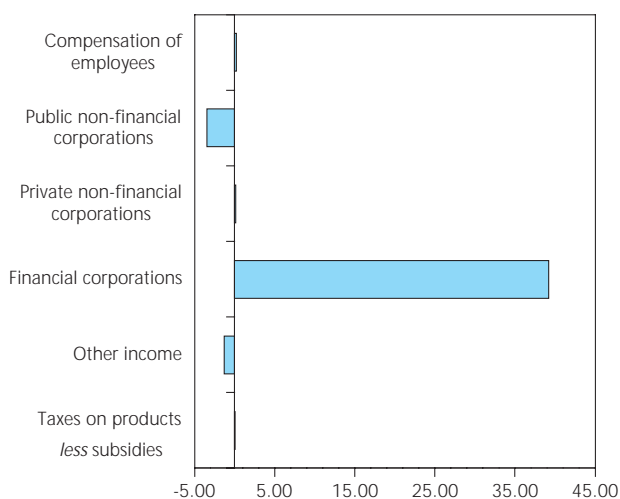
changes from 39.23 to 4.98 percentage points. Neither are statistically significant.

The interesting aspect of Financial Corporations is that the mean revision, mean absolute revision, variance and MSE are large but the mean absolute relative revision is not the largest of the income components. The mean absolute relative revision gives an indication of the relative impact of the revision on growth rates of the component. This indicates that despite the mean revision being large, it does not impact greatly on the component probably because it is a volatile series from one quarter to the next and can itself have very large growth rates.

In addition to Financial Corporations, the MSE column in Table 5 also shows that Public Non-Financial Corporations and Other income are also not effective predictors of the final estimate. In both of these cases, the mean revision is not significant which is most likely to be due again to the large variance of the revisions. Of the income components, it can be seen that CoE and Taxes on products less subsidies are the best predictors of the final value.

Figure 11 shows the impact of revisions different components have on GDP(I) (see Figure 5 for an explanation).

Figure 11 shows the relative impact of the mean revisions to the components by taking into account their proportion of GDP. It shows that the mean absolute revision to Financial Corporations of 85.22 does not have as large an impact as may be expected because it only contributes 2.9 per cent to GDP. It does however, still have the largest impact on GDP as it is the only component above the constant line. The mean revisions to Private Non-Financial Corporations and Other income have a similar impact on GDP since they are both very close to the constant line.

Summary of revisions to income components

Analysis of revisions to quarterly growth in the income components of GDP is contained in Appendix E available at: www.statistics.gov.uk/cci/article.asp?ID=1289
A summary of the results is presented here:

CoE – Mean revisions are small compared to some of the other components of income, the overall mean revision is small at 0.23 percentage points and is not statistically significant. Revisions have been negative, on average, between M2 and M3; positive for M3 to BB1; and fairly evenly split for BB1 to BB2 and since BB2. The mean revision of –0.16 percentage points between M2 and M3 is the only stage of the production process for which the mean revision is significant. This is due to the very low variance of the revisions at 0.04.

Public NF Corporations – None of the mean revisions for different stages of the production process are statistically significant. Public NF Corporations has the second largest mean revision of all the income components (without regard to sign) but it is not statistically significant due to the large variance of the revisions.

Private NF Corporations – None of the mean revisions for different stages of the production process are statistically significant. Revisions are variable and are made in both directions at every stage of the production process. In over half of the quarters during the time period analysed the revision has caused the latest estimate to have a different sign from the M3 estimate, changing the pattern of growth. The net effect of large revisions in opposite directions is that the overall mean revision is small at 0.12 percentage points and not statistically significant.

Financial Corporations – Mean revisions are the largest among the income components but none are statistically significant due to the large variance of the revisions. The overall mean revision of 39.23 percentage points is being driven mainly by revisions to one quarter (2001Q1) due to revised FISIM (financial intermediation services indirectly measured) data. If this quarter is removed from the analysis, the mean revision changes from 39.23 to 4.98 percentage points, neither are statistically significant. None of the mean revisions at different stages of the production process are significant. The largest mean revision occurs post BB2 which is again driven by 2001Q1, with its removal the mean revision changes from 28.68 to 4.89 percentage points.

Other income – Revisions to Other income are very variable and are made in both directions at every stage of the production process. This leads to high variances for the revisions and results in none of the mean revisions for different stages of the production process being statistically significant.

Taxes on Products less *Subsidies* – Mean revisions are small compared to some of the other components of expenditure, the overall mean revision is small at 0.07 percentage points and is not statistically significant. Revisions have been negative, on average, between BB1 and BB2; and positive for all other stages. Revisions are often made in opposite directions at different stages of the production process for the same quarter, which net each other out to an extent. This can be seen by noting the overall mean absolute revision which at 1.35 is relatively larger than the mean revision of 0.07 percentage points.

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Appendix A

Progress by ONS towards the recommendations of the Statistics Commission Review of Revisions to Economic Statistics – 31 October 2005

Statistics Commission Recommendations	ONS Response to the Statistics Commission	Progress and timetable
1) Recommendation: The Office for National Statistics (ONS) should assess more systematically the performance of the forecasting models used in compilation of the first estimate of GDP, undertake further methodological development, and make other changes aimed at greater transparency and best practice.	1.1) ONS has been reviewing its models and systems in the context of the Statistical Modernisation Programme. This includes re-engineering of systems and methods for both the National Accounts and Labour Market Statistics. Work on re-engineered systems will continue and is scheduled to be completed by March 2006, with full implementation over the following year.	Work on re-engineered systems continues. They will be delivered for National Accounts central systems and Labour Force Survey Re-weighting by March 2006. The systems will then be tested and quality assured before being embedded into production systems with planned implementation in 2008.
	1.2) ONS will now undertake a review of the forecasting models used in the preliminary estimate of GDP, drawing on external expertise. This review will also examine the scope for making use of qualitative surveys.	The work was taken forward in two sub-projects: i) an analysis of the statistical properties of the surveys conducted by external organisations, and ii) a study of optimal forecast methods for preliminary GDP. Work on the statistical properties of external surveys has now been completed and supports the basis of ongoing quality assurance of ONS regular outputs. Work on optimal forecast methods has led to a more detailed examination of the early estimates of GDP. This includes analysis of the extent to which forecasting, annual benchmarking, and methods changes have contributed to revisions to the output estimates of GDP.
	1.3) ONS will produce an article on methods used to produce the preliminary estimate of GDP, updating the article in *Economic Trends* March 2000. This will include documentation of models used. The models used for construction are already documented in Volume 3 of the Commission's report.	An article based on the findings of this work has been published in the April 2005 edition of *Economic Trends*. This can be found at: www.statistics.gov.uk/articles/economic_trends/ET617Skipper.pdf
2) Recommendation: ONS should reassess existing quality control arrangements in all instances where data for quarterly GDP is compiled outside ONS, especially where those data are mainly based on forecasts.	2.1) ONS is currently taking steps to ensure that all key data series and forecasts provided by OGDs are covered by up to date Service Level Agreements (SLAs).	ONS has recently launched a corporate initiative to manage its relationships with all its key stakeholders, termed accounts. Each key account relationship is overseen by an executive director in ONS. This ensures that all aspects of the relationship, including the provision of data to ONS, is fully and actively managed. This process is underpinned by Service Level Agreements (SLAs) which are being refined to focus on key operational needs and issues in a common format. The most important of these SLAs have all been recently updated and senior management are fully informed about their operation and any problems which occur. Further key accounts are being similarly covered as resources permit.

Statistics Commission Recommendations	ONS Response to the Statistics Commission	Progress and timetable
3) Recommendation: DTI should work together with ONS to consider whether production of construction forecasts for the first estimate of GDP might better be handled within ONS.	3.1 and 3.2) Discussions about responsibility for construction statistics have started between ONS and DTI at permanent secretary level. It is proposed to defer decisions until the second stage of the joint DTI/ONS review of early estimates of construction output for GDP has been completed later this year. The second stage of the joint review is examining ways of improving the early estimates of construction, including looking at the case for producing a monthly index of construction output. Such an index could be based either on a new monthly survey or modelled estimates or a combination of the two. This decision needs to be made first, as it will influence the priority that needs to be given to any changes in responsibility.	The second stage of the report was published in November 2004 at: www.statistics.gov.uk/about/Methodology_by_theme/revisions_policies/construction_output_statistics.asp It established that there had been an error within the DTI of the processing of the Q1 2003 estimate of construction output. Revised figures have now been published by DTI, and ONS has updated the national accounts to reflect the correction of this error. Discussions with regard to which department should have lead responsibility for the production of estimates of construction output have taken place between the DTI and ONS permanent secretaries and have now been concluded. It was decided that DTI will retain responsibility for the production of estimates of construction output for the near future but with the aim to transfer the responsibility to ONS in the long-term. A report outlining this decision was published in October 2005 at: www.statistics.gov.uk/cci/article.asp?ID=1287
4) Recommendation: ONS should explore ways to influence external perceptions so that revisions are not simply equated with correction of errors, and should devote resources to assessing users' comprehension of, and reaction to, the recent revamping of the information content of First Releases.	4.1) ONS will continue with initiatives to influence external perceptions, such as the publication of articles, organising seminars and conferences and, wherever possible, by clearly signalling planned revisions in advance.	ONS first releases covering time series subject to revisions now include this information as standard.
	4.2) ONS will be holding a workshop later this year for City analysts and economic journalists on methods for producing National Accounts and reasons for revisions.	The workshop, known as an ONS Economic Statistics Forum, was held on 30 September 2004 at the Bank of England and was repeated on 8 January 2005 at HM Treasury. Slides from the forum are available on the National Statistics website at: www.statistics.gov.uk/about_ns/economic_revisions.asp
	4.3) ONS agrees that it is a good idea to assess users' comprehension of, and reaction to, the new material on revisions in First Releases and will be considering the most cost effective way of doing this. However, feedback will be sought at the workshop for City analysts and economic journalists in order to make an early start on this.	ONS has invited feedback at events, in articles and on its website, but comments so far have been limited. A summary of feedback received to date is contained in the article by E George and D Obuwa: National Accounts' Revisions Analyses: A Summary to April 2005. This is available at: www.statistics.gov.uk/cci/article.asp?ID=1140
	Additional action on recommendation 4)	The Statistics Commission organised a seminar that brought together leading government statisticians, politicians and journalists in order to discuss with the Commission the issues highlighted by the report. This was held on 28 October 2004. The report can be found at: www.statscom.org.uk/media_pdfs/reports/Revisions%seminar%2028.10.04.pdf ONS discussed the key issues with regards the communication of revisions to users.
	Additional actions on recommendation 4)	A paper on how to use revisions information in compilation was produced for the ONS/OECD international workshop discussed as part of recommendation 5. See: www.oecd.org/dataoecd/43/62/33779647.pdf
	Additional actions on recommendation 4)	Len Cook presented a paper at a DGINS conference in Copenhagen in May 2005 on 'The Challenge of Communicating Statistics'. In this paper he discussed the problems ONS faced after making a large revision in September 2003, the work we have done following the Statistics Commission review, and the lessons learned from the experience. The paper built on the article published by Len Cook in January 2004: www.statistics.gov.uk/about_ns/downloads/economic_revisions_article_len_cook.pdf

Statistics Commission Recommendations	ONS Response to the Statistics Commission	Progress and timetable
5) Recommendation: ONS should provide more information about past revisions in its First Releases, and should publish further analyses and information relating to the reliability of the main economic time series.	5.1) The initial programme of including information on past revisions in First Releases, which began in February, will be completed in June. By then revisions information will be included in 23 releases including all the macro-economic time series releases. ONS is currently considering whether to expand further the range of information contained in its First Releases.	Information on revisions is now available in 23 First Releases. 18 of these contain revisions analysis (the others do not have long enough time series available). See: www.statistics.gov.uk/cci/article.asp?ID=793 for more detail on the policy and: www.statistics.gov.uk/about/Methodology_by_theme/revisions_policies/default.asp for access to the supporting data. See also recommendations 5.3, 5.4 and 5.6.
	5.2) The regular annual article on revisions to quarterly GDP growth, last published in December 2003, will be extended to cover output components of GDP. These changes will be made for the next article due around the end of the year.	The GDP Annual Article on revisions analysis is published alongside this update in the December 2005 edition of *Economic Trends*. This includes analysis of revisions to GDP(O), GDP(E) and for the first time GDP(I) components by stage. An article 'Analysis of Revisions to Quarterly Current Account Balance of Payments Data' was published in May 2005, and appeared in *Economic Trends* in August. See: www.statistics.gov.uk/cci/article.asp?id=1125 See also recommendation 4.3.
	5.3) Over time the [revisions webpage] will be developed to include more information, including real-time datasets (that is, of revisions triangles). It is hoped to include revisions triangles for GDP, retail sales and the Index of Production in a common format by the end of the year.	ONS manages a revisions website at: www.statistics.gov.uk/about_ns/economic_revisions.asp This website contains links to revisions triangles (real time databases) supporting the revisions analysis contained in first releases (see 5.1 above). These can also be used to examine past revisions to a time series further. See: www.statistics.gov.uk/about/Methodology_by_theme/revisions_policies/default.asp to access the triangles and: www.statistics.gov.uk/cci/article.asp?ID=1026 for more information on the policy.
	5.4, and 5.6) The first priority of ONS with respect to quality is the fundamental upgrading of its information management and methodology in order to provide the capability for strengthening the quality and measures of quality associated with each statistical measure. The second is to provide ways for users to assess the fitness for purpose of official statistics when they apply them to uses beyond those that determined the key attributes of the measure. The aim is to produce by the end of the year a paper presenting the different options [for reliability measures], which would then be used to engage in the international debate.	An article launching the concept of Quality Reports as a method for publishing quality information for National Accounts outputs was published in June, see: www.statistics.gov.uk/cci/article.asp?ID=1141 This covers a programme of work underway on producing usability statements / Quality Reports for National Accounts outputs, with GDP acting as the pilot. The Summary Quality Report for GDP was published in June, see: www.statistics.gov.uk/cci/article.asp?ID=1180 The programme of work to develop Quality Reports for other key economic indicators has begun and is due to be completed within the next two years. Over the next six months, Quality Reports are planned to be developed for Labour Market Statistics, Balance of Payments, Index of Production and Index of Distribution.

Statistics Commission Recommendations	ONS Response to the Statistics Commission	Progress and timetable
	5.5) There are also the European Central Bank indicators covering the National Accounts, and descriptive quality indicators being developed by Eurostat, covering facets of quality such as relevance, comparability, accessibility and coherence.	ONS have been involved in the Task Force on Output Quality for Quarterly National Accounts throughout and fully intend to be involved in any future work. The final report of the task force can be found here: www.cmfb.org/pdf/CMFB%2004-06-A.7.1%20 FinalCMFBreport%20TF%20QNA.pdf ONS have utilised this final report in developing the work on quality indicators in 5.4 and 5.6 and will therefore be well placed once this work is rolled out across member states.
	Additional actions on recommendation 5)	A joint ONS/OECD international workshop to discuss revisions analysis was held on 7/8 October 2004 in Paris. ONS presented our own experiences as well as comparing results and techniques with other OECD countries. For papers and slides see: www.oecd.org/document/23/0,2340,en_2649_34253_33729303_1_1_1_1,00.html
6) Recommendation: ONS should use the opportunity offered by implementation of the Protocol on Revisions to clarify revisions policy in two ways: **In cases where the need for 'unexpected' revisions is known but the full effects cannot be quantified for some time, revisions should normally be handled in the same way as revisions from methodological changes, that is with a preannouncement of the intention to make the change, together with, where possible, an indication of its likely effects.** **Interpretation of the clause in the Protocol on Revisions that requires, for market sensitive statistics, that the process of release of revisions must not in itself create uncertainty should be clarified. The Commission recommends that this should be interpreted as applying to the actual process of releasing revisions and not to preannouncement of intention to make a previously unforeseen revision. The National Statistician may want to consider whether any redrafting of the protocol is needed, in order to remove ambiguity.**	6.1) It is well established practice within ONS, in cases where the need for 'unexpected' revisions is known but the full effects cannot be quantified for some time, that revisions should **normally** be handled in the same way as revisions from methodological changes, that is, with the preannouncement of the intention to make the change, together with, where possible, an indication of its likely effects. 6.2) Each case is, and will continue to be, judged on its merits. However, as the National Statistician's letter of 7 July to the Chairman of the Statistics Commission and ONS's submission to this Review (Volume 3 pp 69–71 and 95–96) explained, the revisions to imports to take account of adjustments for the effect of VAT fraud were quite exceptional in a number of respects. They were very large, with a wide range of uncertainty and were associated with criminal activity. Throughout there was a need to take care not to compromise Customs law enforcement operations. Moreover they had complex ramifications across a range of statistics, including the Balance of Payments and National Accounts as well as the trade statistics themselves. 6.3) The way that the revisions to imports were handled should not, therefore, be regarded as setting a precedent. It was because of their exceptional nature that the National Statistician wrote to the Commission on 7 July giving a full account of the circumstances. It is not the intention of the Code of Practice to resolve all difficult situations, but to ensure that all decisions that involve difficult judgements are managed transparently, consistently, and do not contradict the principles of the Code of Practice. Each such decision in itself contributes to the body of 'case law', guiding responses in future similar situations. 6.4) The National Statistician believes that the requirement set out in both the Protocol on Release Practices and the Protocol on Revisions that 'for market sensitive statistics the process of release of revisions must not itself create uncertainty' is very important and applies at all stages of the process. Nevertheless the National Statistician, as explained in his letter of 26 April to the Chairman, will consider the Commission's views alongside discussions with his counterparts in other countries about international practice.	Following a response to ONS' comments from David Rhind of the Statistics Commission, Len Cook sought views from other NSIs. His response to David Rhind can be seen at: www.statistics.gov.uk/about_ns/downloads/rhind22.pdf

Advertising placement Corporate Services Price Index

Anthony Luke
Office for National Statistics

The Office for National Statistics is developing a Corporate Service Price Index (CSPI) for the advertising placement industry. The advertising placement CSPI will monitor the price of advertising space on television and in printed publications. The television advertising CSPI is created using unit prices estimated from audience and revenue figures, weighted together using revenue figures fixed in the base year 2000. A printed media advertising CSPI is created using unit prices estimated from advertising rate card prices, adjusted by audience and discounting factors, weighted together using advertising revenue figures fixed in the base year 2000. It is estimated that the adverting placement CSPI will be published in the CSPI 2006 quarter one results on 12 May 2006.

Introduction

The Corporate Services Price Index (CSPI) branch of the Office for National Statistics (ONS) is currently developing a CSPI for the advertising placement industry. We intend to publish the price index as part of CSPI's quarter one 2006 results. It also provides details on how the price index is being compiled, what data sources are being used and what the overall coverage of the advertising industry will be.

To see more information about CSPI and to view the latest results, please visit the National Statistics website at: www.statistics.gov.uk/cspi.

Scope

The Advertising industry can be categorised using the following two industrial classifications:

The UK Standard Industrial Classification (SIC) identifies the following:

Advertising (74.40):

74.40/1	Sale or leasing activities of advertising space or time
74.40/2	Planning, creation and placement of advertising activities
74.40/9	Advertising activities not elsewhere classified

The Central Product Classification (CPC) is similar:

Advertising (836):

8361 Planning, creating and placement

8362 Purchase or sale of space, on commission

8369 Other advertising services

As can be seen, expenditure in the advertising industry can be split between the cost of creating an advertisement, the cost of displaying an advertisement and the fees for arranging either or both.

Initially, ONS planned to develop a price index that would have covered the whole advertising industry. Unfortunately, there are many problems to overcome when trying to develop a price index for the creative side of advertising. For example, many of the contracts that advertising agencies take on are unique, making price collection difficult. Weighting items is also problematic because many different elements make up the creative process. A television commercial, for example, involves hiring many specialists such as film directors, actors, cameramen, lighting technicians and catering staff. Also, the cost of hiring a famous actor will be

considerably higher than the cost of hiring an unknown. Such inconsistencies, in the price of elements with the same basic specifications, add to the difficulty of creating accurate weights.

It is also difficult to measure the expenditure split between creation and display because there is a lack of statistical data relating to this matter in the advertising industry. One industry expert consulted estimated that 90 per cent of advertising revenue is generated by placing advertisements. But there was no statistical evidence to support this assumption.

The structure of the advertising placement industry is more apparent thanks to statistical data gathered by the Advertising Association, a trade association.

Taking the above into consideration, ONS has chosen to develop a CSPI for advertising placement. It is hoped that the price index will be expanded at a later date, to cover the creative side of the industry, but this will not happen in the immediate future.

Currently, the CSPI measures the changing cost of advertising, in other words, the changing cost of the space an advertisement takes up, be it air-time on a television station or column inches in a newspaper.

Industry structure

Figure 1 is an industry structure diagram showing the various media types that sell advertising space. The numbers on the diagram are the weights for each media's size within the industry, relative to each other. These weights were derived from advertising expenditure figures published in the Advertising Association's *Advertising Statistics Yearbook 2001.* The areas highlighted in bold show the current coverage of the advertising placement CSPI:

As can be seen, the CSPI covers two media types, television and printed media which between them account for 75 per cent of the revenue generated by the industry.

Methodology

The following section outlines the methodology behind the advertising placement CSPI. The two major components, television and printed media, are discussed separately because they are compiled in different ways.

Television advertising placement

Prices for advertising space on television are affected by a number of factors: The time of day and year, the audience size and type and the buying power of the advertisers (by buying lots of space an advertiser can secure large discounts). This makes direct measurement of television advertising prices difficult. To make things simpler, a proxy price index has been created, using a combination of advertising audience figures, revenue data and average Cost Per Thousand (CPT) values. These figures have been supplied to ONS by a third-party company called Nielsen Media Research (NMR). The figures are supplied on a quarterly basis for every television channel broadcasting in the UK.

Audience figures are measured in impacts; each impact represents one adult watching a thirty second commercial. Impacts are most commonly measured in thousands. Revenue figures are defined as the amount of money generated through the sale of advertising space in a given period. Price estimates can be generated by taking the channel's total advertising revenue figure in a quarter and dividing it by the impact figure for the same period. This gives an estimate of the price for displaying an advert to one thousand people or, as it's more commonly known in the advertising industry, a Cost Per Thousand (CPT).

Figure 1
Industry structure diagram
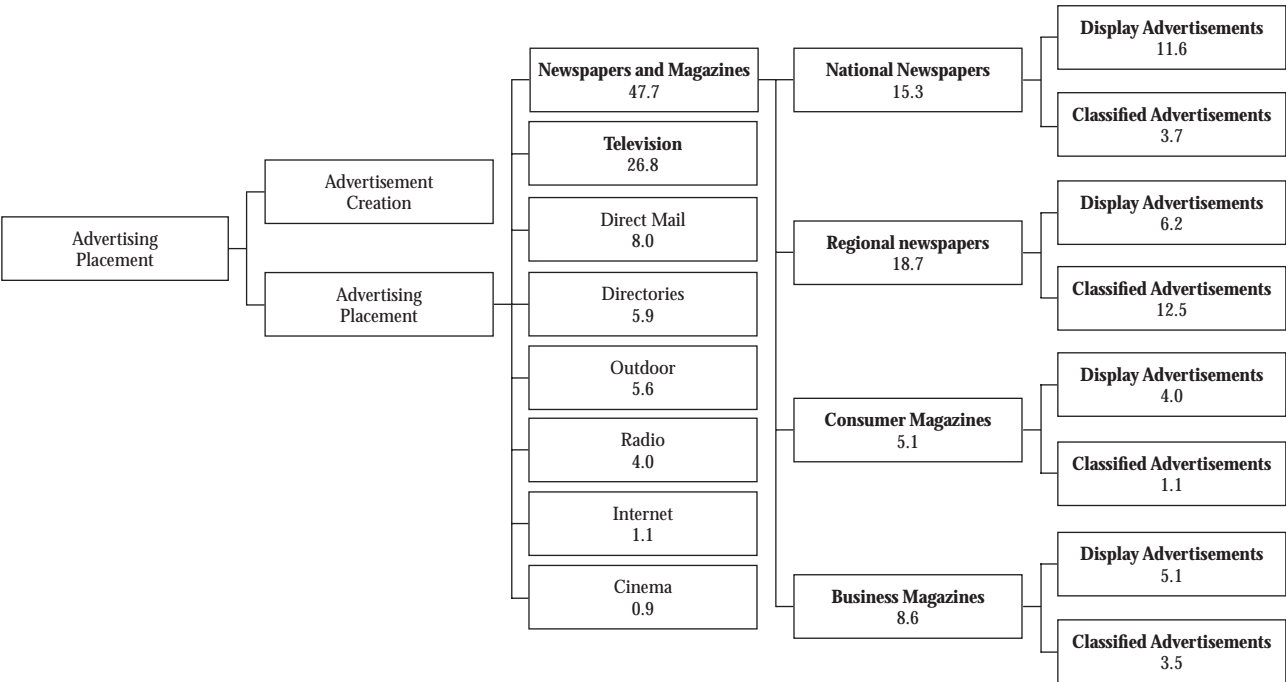
To create a television advertising CSPI, channels are separated into different groups. Terrestrial channels are grouped according to the region they broadcast to (for example, West Midlands, East Anglia, South Wales). Satellite channels are grouped according to the type of shows they broadcast (for example, movies, films, documentaries). All the channels in a particular group are assumed to have equal weights. This means a CPT value can be calculated for each group by dividing the total revenue figure for all the channels in the group by the total audience figure. Movements in these group CPTs are used to calculated quarterly price relatives, using the year 2000 as the base period. A weighted average is calculated from these price relatives to give a price index. The weights for group price relatives are calculated from the total revenue generated in the base year 2000 by each channel in the group. In the future the base period for the advertising placement CSPI will be revised every five years.

In summary, unit prices are estimated from audience and revenue figures and they are weighted together using revenue figures fixed in the base year 2000 to give a price index.

Printed media

The printed media CSPI includes four media types: national newspapers, regional newspapers, consumer magazines and business magazines.

The advertisements that appear in these publications fall between two categories, display and classified.

Display advertisements are usually big, often filling half a page or more and in many cases they are printed in colour to make them as eye catching as possible. They are favoured by companies with products or services they wish to sell or promote.

Classified advertisements, by contrast, tend to be smaller and in black and white. They are used primarily for advertising jobs, properties and educational courses. They do not need to be as eye catching as display advertisements because people seek them out if they are in the market for the product or service being advertised. For example, someone looking for work will seek out the recruitment section of a newspaper.

Magazines usually carry more display than classified advertisements because magazines are a more colourful medium. Newspapers normally carry both and the split between them can vary significantly between publications.

To create a printed media CSPI, ONS has adopted a slightly different methodological approach to that of television. A sample frame for printed media was drawn up. The basis for this sample frame was a list of publications and advertising revenue data provided by NMR. Every publication in the sample frame was divided into one of the twelve following strata:

- consumer magazines display
- consumer magazines classified
- national papers display
- national papers classified
- daily regional newspapers display
- daily regional newspapers classified
- free weekly regional newspapers display
- free weekly regional newspapers classified
- paid for weekly display
- paid for weekly classified
- business magazines display
- business magazines classified

Using proportion probability sampling a representative sample of publications were selected from each stratum. Each publication's total advertising revenue figure in the year 2000 was used as the weighting factor in this selection process.

For every publication in the selected sample we have collected an advertising rate card price. The type of price selected depends on the stratum to which the publication belongs. So, all the prices selected in the National Papers Display stratum will, for instance, be for display advertisements.

Each publication's rate card price is divided by the publication's circulation figure. This gives an estimate for the price of displaying the advert to one person.

Both prices and circulation figures are available on each publication's rate-card. These rate-cards are collated for us by a company called British Rates and Data (BRAD). BRAD produce a monthly book which contains rate-cards for nearly every publication published in the UK. The same rate-card data is also held on their website: www.intellagencia.com

Rate card prices, however, do not always reflect the price actually paid for advertising space. In many cases, advertisers can secure large discounts on the rate card price by buying advertising space in large quantities or at the right time of year. Unfortunately, it is very difficult to measure discounts directly because every advertising campaign is unique and so are the discounts applied to them. Again, ONS has relied on third-party company NMR to supply us with discounting factors. These are available for all the display advertisements in our sample and we have applied these to the price estimates detailed in the previous couple of paragraphs. Discounting factors for classified advertisements are not available, but this is not considered a problem because discounting is much rarer on classified advertisements.

Rate card prices, circulation figures and discount factors are combined to create an estimated price for each of the publications in the sample. This process is repeated on a quarterly basis. The changes in these estimated prices are used to create price relatives for each publication in our sample, using the year 2000 as the base period.

A weighted average of these price relatives is taken to create a price index for each stratum listed above. The weights are derived from total 2000 advertising revenue figures supplied by NMR for each publication. These weights remain fixed in the base year 2000.

The price indices for each stratum are then weighted together using total revenue figures for each stratum in the year 2000 to give a price index for printed media. The weights used are derived from advertising revenue figures published in the Advertising Associations' *Advertising Statistical Yearbook 2001*. These figures are used instead of the NMR data because they are total UK revenue figures and not just the total revenue figures of the publications in the sample frame.

In summary, advertising rate card prices, adjusted by audience and discounting factors, are used to create price relatives, which are weighted together into a price index using advertising revenue figures fixed in the base year 2000.

Creating a top-level advertising placement CSPI

To create a top-level CSPI we simply combine the two price indices for television and printed media advertising described above. The two sets of price relatives are weighted together using total UK advertising revenue figures for the two media types in the year 2000. These figures are published in the *Advertising Statistical Yearbook 2001*.

Summary of data sources

Nielsen Media Research (NMR) is a research and analysis company that collects a wide variety of statistics on numerous media types. More information about NMR can be found on their website: www.nielsenmedia.co.uk.

They provide the following data:

- quarterly television advertising audience and revenue figures for all UK channels dating back to Q1 2000

- quarterly discounted and non-discounted advertising revenue figures for printed media dating back to Q1 2000

BRAD (British Rates and Data) Group is a market research company that collates advertising rate-cards for the majority of newspapers and magazines printed in the UK. They publish these rate-cards in monthly directories and on their website: www.intellagencia.com.

They provide the following data:

- quarterly rate-card prices for the sampled publications dating back to Q1 2000

- quarterly circulation figures for the sampled publications dating back to Q1 2000

The Advertising Association (AA) is a trade association for the advertising industry. They produce statistics and reports which they publish in numerous booklets and on their website: www.adassoc.org.uk.

The following data is published in the AA's *Advertising Statistics Yearbook 2001*:

- total UK advertising revenue figures for each of the printed media stratum in the year 2000

- total UK advertising revenue figures for each media type operating in the advertising industry in the year 2000

Publication

It is hoped that the advertising placement Corporate Services Price Index will be published as part of the CSPI's 2006 quarter-one results. These will be available on the National Statistics website on 12 May 2006: www.statistics.gov.uk/cspi. It must be understood, however, that the price index is still under construction, so release dates are subject to change. We would welcome comments from any potential users on this work.

Acknowledgments

IT investment, ICT use and UK firm productivity

Tony Clayton
Office for National Statistics

In a research programme sponsored by the Department of Trade and Industry, economists from the London School of Economics (LSE) and the Office for National Statistics (ONS) have shown how much ICT investment and use improves productivity in UK business.

The research links data from tens of thousands of firms collected in ONS surveys. It uses data on sales and value added by firms, investment in IT and other assets, employee numbers, pay and skills, purchases of IT and telecoms services, ownership and multinational links, employee and business use of computers and on e-commerce and e-business activity.

It quantifies IT investment behaviour, and the productivity effects in UK firms associated with:

- investment in computer hardware and software

- use of computers or the internet by employees

- use of e-commerce for buying and / or selling

- use of telecommunications

- use of electronic business processes

Most are shown to have statistically significant relationships with business productivity. The study also shows that US owned firms get more out of IT investment.

The two articles which follow outline two aspects of the research which are innovative:

The role of IT in firm productivity; evidence from UK microdata, by Rafaella Sadun of LSE outlines the techniques used to create estimates of firm level purchased hardware and software capital, the relationships established between IT capital (hardware and software) and productivity, and the range of stringent econometric tests used to ensure results are not due to endogenous effects or spurious correlation.

ICT use and productivity by Shikeb Farooqui of ONS takes Sadun's conclusions on IT capital and looks at the additional effects on productivity associated with measures of ICT use, particularly use of computers and the internet by employees, use of electronic trading, and purchases of telecommunications services.

So far as we are aware this is first time such a broad range of ICT indicators, and other factors, have been used to assess firm level productivity effects, Earlier international studies coordinated by OECD have looked at most of them separately, and we have drawn on this work (see The Economic Impact of ICT, Measurement, Evidence and Implications, OECD 2004).

Articles covering a wider range of results of the research programme, and its implications for ICT measurement in the economy, are published on the National Statistics website at www.statistics.gov.uk/cci/nugget.asp?ID=1240

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The role of IT in firm productivity; evidence from UK micro data[1]

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In this article we analyse the productivity impact of Information Technology (IT) in the UK economy using a newly built micro dataset on hardware and software capital stocks of 20,000 firms both in manufacturing and services between 1995 and 2003. We first describe the construction of the IT capital stocks, which are built applying the Perpetual Inventory method. We then quantify the productivity impact of IT using several econometric techniques (OLS, GMM and Olley Pakes) which exploit the rich cross sectional and time series dimensions of the data. IT appears to have a significant impact on productivity, and the elasticity estimates are comparable with the results found in the literature for the US.

Introduction

Recent years have witnessed an increasing interest on the relationship between Information Technology (IT) and productivity. A rich array of analysis has explored this issue empirically, first in the framework of the US economy and more recently in a broader set of countries. The initial studies – based on growth accounting techniques applied to industry level data – have and continue to be extended by additional evidence based on firm level and industry-specific analysis. The main result coming out of these studies is that IT brings along significant productivity effects, with estimates ranging from normal to 'excessive' returns depending on the type of data used.

In this article we examine the productivity of IT in a panel of UK establishments, using for the first time firm level information on IT expenditure collected by the Office for National Statistics (ONS). In its spirit, this exercise is similar to previous studies analysing the productivity of IT at the micro data level. In contrast with the previous literature, the variables used in this work to measure the IT inputs are capital stocks estimated via the perpetual inventory method – rather than volume based estimates of capital stocks (Brynjolfsson and Hitt, 2003), investment flows (OECD studies) or binary variables documenting the existence of IT infrastructure within the firm (Atrostic and Nguyen, 2004). This feature of the data, combined with its time and cross-sectional dimension, allows the use of a variety of econometric techniques beside Ordinary Least Squares (OLS) – namely Generalised Method of Moments (GMM) and Olley-Pakes (1996) – able to refine the robustness of the econometric estimates with respect to measurement and endogeneity issues.

The first section of the article describes the main data sources used to build the IT variables. The second section explains the methodology used to estimate capital stocks out of investment flows. Finally, it presents the main results of the productivity regressions using various econometric techniques.

Data

ONS has collected information on firm level IT expenditures since the late 1990s using various sources. The Business Survey into Capitalized Items (BSCI) included a question on hardware and software expenditures since 1998. The Quarterly Inquiry into Capital Expenditure (QCapex) introduced similar questions in 2001. The first IT information is contained in the one-off Fixed Asset Register (FAR) covering 1995 to 2000. The Annual Business Inquiry (ABI), the major source of establishment level data in the UK[2] also has additional questions on software included since 2000.

These surveys are compiled at the firm level, that is, at the reporting unit level. The 'reporting unit reference number' (RUREF) is an identification number unique to each establishment which does not change when a plant is taken over by a new firm, for example. The surveys contain information on the value (in thousands of

pounds) of software and hardware acquisitions and disposals reported by the firm in a specific year.

■ *The Business Survey into Capitalised Items (BSCI)* asks for details of acquisitions and disposals of capital in more than 100 categories, including computer hardware and software. The survey is annual and runs between 1998 and 2003; we dropped the 1998 cross section due to concerns over reliability expressed by the data collectors. There is a 100 per cent sampling frame for the largest 750 businesses and a stratified random sample of medium sized businesses (between 100 and 750 workers). The BSCI contributes about 1,500 to 2,000 observations on IT expenditure for each year between 1999 and 2002.

■ *The Quarterly Inquiry into Capital Expenditure* (QCapex) provides information on hardware and software investments from 2000 Q1 until 2003 Q4. The inquiry selects 32,000 establishments each quarter. Of these 32,000 companies, all establishments with over 300 employees are selected each quarter. Businesses with fewer employees are selected for the inquiry randomly. Each quarter one-fifth of the random sample is rotated out of the sample and a new fifth is rotated in. The quarterly data have been annualized in several alternative ways and we checked the robustness of the results across these. First, we extrapolated within year for establishments with missing quarters.[3] As a second alternative, we constructed an indicator that gives the number of non-missing values that exist for each year and establishment and included this as an additional control in the regressions. Third, we dropped observations constructed from less than four full quarters. The results were quite robust across all three methods and the tables report results based on the first method.

■ *The Fixed Asset Register (FAR)* asks for the historic cost (gross book value) of the fixed assets held on the firms' asset register, broken down by the years of acquisition. The survey provides information on IT hardware assets only, and covers the years 1995 up to 2000. The survey provides information for about 1,000 hardware observations.

■ *The Annual Business Inquiry (ABI).* The long version of the ABI survey sent to a third of the overall ABI sample (mainly large firms) contains a question on software expenditures from 2000 onwards. The ABI team uses the long surveys to build estimates of software expenditure purchased by smaller firms. This gives approximately 25,000 non-zero returned values for software investment in each year.

Estimation of IT capital stocks

Since some of the firms contained in the overall sample appeared more than once, we were able to build up IT capital stocks from IT expenditure using the perpetual inventory method following Jorgenson (2001). In doing so, we kept to US assumptions over depreciation rates and hedonic prices and used industry level estimates from the input-output matrices for the initial year of the IT stock in the establishment's two digit industry using the estimates in O'Mahony (2003) (we also compare with Oulton, 2004).[4]

Once the stocks were built within each different survey, we combined them across surveys and, for hardware and software separately, we built across-surveys stocks.[5]

The basic Perpetual Inventory Method (PIM) equation is:

$$K_{it}^h = I_{it}^h + (1 - \delta^h) K_{it-1}^h \qquad (1)$$

where I_t^h represents real investment of asset type h (for example, computer hardware, I_t^c) and δ_t^h is the asset specific depreciation rate. To construct real investment we deflated nominal investment using the economy-wide (asset specific) hedonic price indices for software and hardware provided by the National Institute of Economic and Social Research (NIESR) (which are based on Jorgensen's US price deflators). We rebased to the year 2000 for consistency with the other PPI deflators used in our econometric analysis.

Basic assumptions

The use of PIM methodology with the ONS micro-data required the introduction of various assumptions regarding the treatment of zero and non-consecutive investments encountered in the IT databases, the choice of the starting point of the recursive algorithm and the deflator needed to build real stocks of IT capital.

Zeros. Both the BSCI and the QCapex code are missing values as zeros. While in the BSCI we are able to identify actual zero investment through a specific coding, but for the QCapex this is not possible. In the construction of the capital stocks we treated the zero investment observations as actual absence of IT investment. Moreover, in order to maximize the number of observations over which we could apply the PIM, we interpolated net investment observations for a single year of data if we observed investment the year before and the year afterwards. This affected only 2.8 per cent of the observations in the regression sample and results are sufficiently robust to be able to discard these observations.

PIM Starting Values. In order to apply the PIM methodology, we needed to approximate an initial value to start the recursion. We applied a similar methodology as the one devised by Martin (2005) to construct establishment level capital stocks in the Annual Respondents Database (ARD). For each firm, we first built two digit industry-specific IT Investment/Capital ratios using the NISEC02 industry level data-set provided by the NIESR, which contains separate time-series data on hardware and software capital stocks and runs up to 2001 (these are based on the input-output tables starting in 1975). We then used the ratio of the establishment's IT investment flow to the industry investment flow (denoted w_{it}^A for method 'A') to impute the IT capital stock (that is, we are assuming that the establishment's investment rate is the same as the industry average investment rate in the initial period). More precisely, we assumed that for t = 0 only the initial plant level IT capital stock C_{io}^A was:

$$C_{io}^A = w_{it}^A C_{jt} \ \forall \ i \in j \ ; \ w_{it}^A = \left(\frac{I_{it}^c}{I_{jt}^c}\right) \qquad (2)$$

where *j* represents an industry so a *j* sub-script represents

an industry total – that is, I_{jt}^c is total industry IT investment and C_{jt} is the total IT capital stock in time t. We applied this approximation to determine our initial condition in the first year that the establishment appears in our sample. For *de novo* establishments this is not an issue as their capital stock is zero. After the first year, we simply apply the PIM method, since some of the establishments that we observe only for the first time may be investing systematically at a different rate from the industry average. To check whether our results were driven by the methodology used to build the initial conditions, we considered an alternative methodology based on employment weights (method 'B'). For the first time we observed a plant in our sample we assumed that:

$$C_{io}^B = w_{it-1}^B \, C_{jt-1} \, (1-\delta) \, + I_{it}^c$$

$$w_{it-1}^B = \left(\frac{L_{it-1}}{L_{j-1}} \right) \quad \forall \, i \in j \qquad (3)$$

Depreciation. As far as the depreciation rate is concerned, for all IT capital (software and hardware) we chose a depreciation rate of 36 per cent per annum. This choice is consistent with the analysis and methodology followed by the Bureau of Economic Analysis (BEA) which, in turn, derives from the study by Doms, Dunn, Oliner and Sichel (2004). In this study, the depreciation rate for PCs is estimated at approximately 50 per cent, this value including both obsolescence and re-evaluation effects. Since – as the BEA – we use real IT investments we have to use a lower depreciation rate to avoid double counting of the revaluation effect, included in the price deflators. Basu *et al* (2003) argue that the true geometric rate of depreciation should be, in fact, approximately 30 per cent. We also experimented with the extreme assumption of a 100 per cent depreciation rate for IT, thus working directly with the flows.

Across-survey stocks

Following the steps described above, we obtained hardware and software stocks within each different survey. In order to simplify the empirical analysis, we combined all the information from the different surveys to construct overall across-surveys IT stocks for both hardware and software. Our strategy was to use the BSCI measure as the most reliable observation (as recommended by the data collectors). We then built our synthetic measure using the QCapex stocks if the BSCI observation was missing or equal to zero and the QCapex was different from zero. We finally used the FAR if both QCapex and BSCI were missing and/or equal to zero and the FAR was not. For the software capital stock we also used the ABI information as a fourth source, following the same order described above. The sources of the aggregate capital stocks are summarized in Table 1.

Table 1
Sources

Number of observations

Source	Hardware capital	Software capital
BSCI	3,704	2,387
QICE	17,517	13,049
FAR	686	881
ABI	-	43,735

In order to keep track of the possible measurement error introduced using this procedure, we introduced in all the IT regressions a dummy that identifies the source of the observation for both the hardware and the software stocks. The dummies are generally not significantly different from zero.

Basic production function estimates

Matching the IT data with the ABI

The standard methodology used to evaluate the impact of IT on productivity is the econometric estimates of a production function where IT is typically introduced as an additional input. In order to perform this type of analysis, we matched our IT dataset with the ABI. The ABI contains information on inputs and outputs reported by UK firms, according to a stratified random sample: sampling probabilities are higher for large establishments (for example, 100 per cent for all establishments with more than 250 employees). Data on the production sector (including manufacturing) is in the ABI which has a long time series element (from 1980 and before in some cases). Data on the non-production sector (services) is available for a much shorter time period (from 1997 onwards). The sample is large: in 1998 alone there are 28,765 plants in the production sector alone (Haskel and Martin, 2002). The questionnaire sent out on the ABI is extensive and covers all the variables needed to estimate basic production functions. In particular we have gross output, value added, employment, wage bill, investment and total materials (this includes all intermediate inputs - energy, materials, etc.) and as described in Martin (2003) yearly firm-level estimates of total capital stock. The ABI also covers the non-manufacturing sector from 1997 onwards. This is important as the majority of the sectors that intensively use IT are outside manufacturing.

The ABI and the IT datasets were easily matched through the RUREF identifier. The three IT hardware surveys were not designed to cover exactly the same establishments as contained in the ABI survey, but because there is over-sampling of the larger establishments in all surveys the overlap is substantial, especially for the larger plants. Our dataset runs from 1995 through 2003, but there are many more observations in each year post-1999. Since the micro data are typically subject to problems related to outliers, we used standard procedures to clean the ABI and the IT data. First, we dropped all observations with negative value added and/or capital stock. Second, we dropped the top and bottom percentile of the distribution of employment and gross value added. Third, we dropped extreme values of total capital stock per employee and gross value added per employee. This step of the cleaning procedure was performed on the overall ARD sample. We applied a similar cleaning procedure also to our across surveys IT variables, dropping the top and bottom percentiles of the ratio of the variables to gross value added.[6]

After cleaning we are left with 22,736 non-zero observations for hardware and 58,283 for software. Some descriptive statistics are presented in Table 2 which refers to 2001. This shows the basic summary statistics for the sample with, respectively, non-missing hardware and software information.

Table 2
Summary statistics sample (2001 cross section)

Variable	Hardware sample			
	Frequency	Mean	Median	Standard deviation
Employment	7,495	795.91	238.00	3,943.87
Capital per worker	7,495	84.03	46.97	112.70
Value Added per worker	7,495	38.92	28.26	52.69
Gross Output per worker	7,495	118.89	81.08	132.32
Total Materials per worker	7,495	79.37	44.47	102.60
Hardware Capital/ Gross Output	7,495	0.0103	0.0041	0.02
Hardware expenditure per worker	7,495	0.94	0.33	2.04
Hardware capital	7,495	989.65	76.55	10,548.86

Variable	Software sample			
	Frequency	Mean	Median	Standard Deviation
Employment	20,259	319.22	55.00	2,808.62
Capital per worker	20,259	66.20	33.77	100.92
Value Added per worker	20,259	34.51	25.08	50.37
Gross Output per worker	20,259	100.49	63.75	115.46
Total Materials per worker	20,259	66.06	32.38	93.76
Software Capital/ Gross Output	20,259	0.008	0.003	0.012
Software expenditure per worker	20,259	0.55	0.20	1.35
Software capital	20,259	199.91	9.78	7,715.68

Notes: All monetary amounts are in sterling in year 2000 prices, deflated using ONS four SIC digit producer price indexes; firm level value added is constructed as the sum of turnover, variation of total stocks, work of capital nature by own staff, insurance claims received minus purchases; total stocks are constructed as described in the Appendix. All variables in units of thousands except ratios and employment.

There are many small and medium sized establishments in our sample – the median employment is 238 and the mean is 796. Mean and median employment tends to be substantially higher than the overall ARD sample (mean employment is 217 and median employment is 22). The reason why we lose some of the smallest plants is because the surveys use stratified random sampling, which gives higher sampling weights to the larger establishments in the economy. Median output per worker (our main measure of productivity) is £82,000 for the hardware sample and £64,000 for the software sample. Value added per worker is £28,300 for the hardware sample and £26,000 for the software sample. The mean hardware capital in the plant is just under £1 million. The mean software capital is substantially lower, about £200,000. The reason for this substantial difference may be due to the fact that the reported hardware investments refer also to bundled software,[7] and also because surveys are believed to understate 'own account' software written by a firm's employees. At rental prices average IT capital is about 1 per cent of gross output at the un-weighted mean (1.5 per cent if weighted by size) or 2.3 per cent of value added (similar to the means in Basu *et al*, 2003).

Econometric methodology

Following Klette (1999), establishments in an industry are assumed to be constrained by a production function $Q_{it} = A_{it} F_t(X_{it})$ where Q is gross output of establishment i at time t, A_{it} is an establishment specific productivity factor and $F_t(.)$ is a part of the production function common to all plants. The production function relationship can be expressed

in terms of logarithmic deviations from a point of reference.[8] This reference point can be thought of as the representative plant's level of output and inputs for each year. Rewriting the production function in terms of logarithmic deviations from this reference point and making some assumptions about the functional form of $F_t(.)$ (denote such a transformed variable $\tilde{x}_{it} \equiv \ln X_{it} - \ln X_t$ where X_t is the reference point[9])

$$\tilde{q}_{it} = \tilde{a}_{it} + \alpha^M_{it}\tilde{m}_{it} + \alpha^L_{it}\tilde{l}_{it} + \alpha^k_{it}\tilde{k}_{it} + \alpha^c_{it}\tilde{c}_{it} \qquad (5)$$

where c is the capital stock of computer hardware, k is non-computer capital, l is labour and m is materials. The $\bar{\alpha}^j_{it}$ is the output elasticity for factor j evaluated at an internal point between X_{it} and X_t. The specific object of interest in this framework is the estimate of α^c_{it}, which measures the elasticity of output with respect to IT capital.

The term $\tilde{a}_{it}$ (the firms' productivity relative to the reference firm) follows an error component structure, that is:

$$\tilde{a}_{it} = a_i + u_{it}$$

The choice of the econometric technique to estimate (5) depends crucially on the different assumptions on the nature of the $\tilde{a}_{it}$ term. The typical concern is that firm level fixed effects are likely to be correlated with input choices, generating biased coefficient estimates. Within group estimations will address the problem only under the crucial assumption that the fixed effects are constant over time. However, when this condition is not met, or when there is measurement error in inputs, fixed effects may actually generate worse estimates than OLS. In this framework, we

can exploit the fact that we have panel data on our plants and attempt to control for unobserved heterogeneity more rigorously through panel data techniques for production functions using, System GMM and Olley Pakes, which are described in the Appendix.

Results

The basic production function results are contained in Tables 3 and 4. For each table, the first three columns present OLS results, the next three columns present GMM-system results and the final column presents Olley Pakes results. Column (1) presents the results without fixed effects, but all other columns control for fixed effects.

Hardware (Table 3)

Across all specifications, all the factor inputs, including hardware capital are positive and significant. In column (1) the sum of the coefficients on the factor shares is 0.99, very close to constant returns to scale. Column (2) includes a full set of 11,000 establishment specific fixed effects. The coefficients all remain significant at conventional levels. The coefficient on hardware capital falls from 0.04 to 0.03, the coefficient on materials falls from 0.54 to 0.47. By contrast the coefficient on non-IT capital increases from 0.12 to 0.16 and the coefficient on labour rises from 0.29 to 0.32. Compared to many other results in the micro production function literature[10] the results here are reasonably stable when including fixed effects.[11]

Table 3
Basic production function estimates – hardware

Estimation Method	(1) OLS, No fixed effects	(2) OLS, Fixed effects	(3) OLS, Fixed effects	(4) GMM, Static	(5) GMM, Dynamic (Unrestricted)	(6) GMM COMFAC (Restricted)	(7) Olley-Pakes
Dependent variable: ln(GO) = ln(Gross Output)							
Ln(Ht) Hardware capital	0.0440*** (0.0023)	0.0299*** (0.004)	0.0265*** -0.0063	0.0391*** (0.0171)	0.0656* (0.0373)	0.0430** (0.021)	0.0204*** (0.003)
Ln(Ht-1) Hardware capital, lagged	-	-	-	-	-0.0343 (0.0242)	-	-
Ln(Mt) Materials	0.5384*** (0.008)	0.4665*** (0.019)	0.4702*** (0.028)	0.3998*** (0.0402)	0.3293*** (0.075)	0.3595*** (0.0494)	0.5562*** (0.0102)
Ln(Mt-1) Materials, lagged	-	-	-	-	-0.0715 (0.0534)	-	-
Ln(Kt) Non-IT Capital	0.1193*** (0.0063)	0.1650*** (0.0153)	0.1953*** (0.0234)	0.1584*** (0.041)	0.3618*** (0.0869)	0.2937*** (0.0526)	0.1511*** (0.0115)
Ln(Kt-1)Non-IT Capital, lagged	-	-	-	-	-0.1815*** (0.0592)	-	-
Ln(Lt) Labour	0.2868*** (0.0062)	0.3177*** (0.0198)	0.2979*** (0.0209)	0.4158*** (0.0479)	0.2981*** (0.0829)	0.3524*** (0.056)	0.2611*** (0.008)
Ln(Lt-1)	-	-	-	-	0.0091 (0.0624)	-	-
Ln(Yt-1) Gross Output, lagged	-	-	-	-	0.2330*** (0.0581)	-	-
Rho, ρ	-	-	-	-	-	0.3488*** (0.0291)	-
Observations	22736	22736	6763	6763	6763	6763	12069
Fixed effects	No	Yes	Yes	Yes	Yes	Yes	Yes
1st order serial correlation test (p value)	-	-	-	-3.634 (0.000)	-5.223 (0.000)	-	-
2nd order serial correlation test (p value)	-	-	-	-0.239 (0.811)	0.953 (0.341)	-	-
Sargan-Hansen Test (p value)	-	-	-	34.38 (0.354)	24.65 (0.852)	-	-
COMFAC (p value)	-	-	-	-	-	6.7474 (0.15)	-

*Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. The dependent variable in all columns is the log of gross output. The time period is 1995-2003. All variables are expressed in deviations from the 4 digit industry mean in the same year. The estimation method in columns (1) through (3) is OLS (with fixed effects in columns (2) and (3); .in columns (4) to (6) we use System-GMM (Blundell and Bond, 2000) and in column (7) we use Olley Pakes (1996). Standard errors in brackets under coefficients in all columns are clustered by establishment (i.e. robust to heteroskedacity and autocorrelation of unknown form). One step GMM results reported. All columns include age, foreign ownership and region dummies and a dummy taking value one if the firm belongs to a multi-firm enterprise group as additional controls. In columns (4) to (6) instruments are all plant level factor inputs lagged t-2 and before (when available) in the differenced equation (i.e. m_{t-2} , n_{t-2} , k_{t-2} , c_{t-2} , q_{t-2}) and lagged differences in the levels equation (Δm_{t-1}, Δn_{t-1}, Δk_{t-1}, Δc_{t-1}). Serial correlation tests are LM tests of the first differenced residuals (See Arellano and Bond, 1991). Sargan-Hansen Test of instrument validity is a test of the over-identification restrictions. Olley Pakes uses a fourth order series expansion to approximate the phi function."*

To implement our GMM estimates we need to condition on a sample where we have at least three continuous time series observations (the OLS estimates keep all observations, even if we only observe a plant for a single period). Column (3) conditions on the same sub-sample that we will estimate our GMM results on and re-runs the within groups estimate of column (2). The estimates are stable even after throwing away about three quarters of the sample. Column (4) presents the equivalent specification using GMM-SYS. The absence of higher order serial correlation and the failure of the Sargan test to reject are consistent with the hypothesis that the instruments are valid. The coefficients on materials and non-IT capital fall and the coefficients on labour and hardware

capital rise compared to column (3). Finally column (5) implements a general dynamic model including lags of all the independent variables and the dependent variable. We then impose the common factor restrictions (COMFAC) by minimum distance and present these restricted estimates in the final column (note that we cannot reject the COMFAC restrictions as indicated by the diagnostics at the base of column (6)). The coefficient on hardware (and the other factors) remains positive and significant with a coefficient of about 0.04 (similar to OLS levels in fact). Finally, column (7) implements a version of the Olley Pakes method. Although all the variables are significant at conventional levels this produces the lowest coefficient on hardware capital in Table 3: 0.02.

Table 4
Basic production function estimates – software

Estimation Method	(1) OLS, No fixed effects	(2) OLS, Fixed effects	(3) OLS, Fixed effects	(4) GMM, Static	(5) GMM, Dynamic (Unrestricted)	(6) GMM COMFAC (Restricted)	(7) Olley-Pakes
Dependent variable: ln(GO) = ln(Gross Output)							
Ln(St) Software capital	0.0491*** (0.0013)	0.0222*** (0.0025)	0.0163*** (0.0033)	0.0231*** (0.0081)	0.0235 (0.0151)	0.0232** (0.0118)	0.0192*** (0.0017)
Ln(St-1) Software capital, lagged					0.0053 (0.0080)		
Ln(Mt) Materials	0.5145*** (0.0046)	0.4061*** (0.0137)	0.4299*** (0.0191)	0.4457*** (0.0343)	0.4244*** (0.0531)	0.4533*** (0.0464	0.529*** (0.0074)
Ln(Mt-1) Materials, lagged					-0.0972*** (0.0262)		
Ln(Kt) Non-IT Capital	0.1007*** (0.0040)	0.2103*** (0.0130)	0.1899*** (0.0189)	0.1504*** (0.0303)	0.2536*** (0.0637)	0.1733*** (0.0411)	0.1534*** (0.0003)
Ln(Kt-1) Non-IT Capital, lagged					-0.1465 (0.0436***)		
Ln(Lt) Labour	0.3227*** (0.0035)	0.3511*** (0.0127)	0.3589*** (0.0182)	0.3857*** (0.0387)	0.2554 (0.0738***)	0.3347*** (0.0479)	0.2945*** 0.0057
Ln(Lt-1) Labour, lagged					0.0148 (0.0519)		
Ln(Yt-1) Gross Output, lagged					0.2766*** (0.0370)		
Rho, ρ						0.3405*** -0.0312	
Observations	58,283	58,283	13,072	13,072	13,072	13,072	26,463
Fixed effects	No	Yes	Yes	Yes	Yes	Yes	Yes
1st order serial correlation test				-8.624	-9.517		
(p value)				(0.000)	(0.000)		
2nd order serial correlation test				-0.172	-0.704		
(p value)				(0.863)	(0.481)		
Sargan-Hansen Test				44.87	39.62		
(p value)				(0.065)	(0.198)		
COMFAC						14.11	
(p value)						(0.007)	

Notes: * significant at 10 per cent ; ** significant at 5 per cent ; *** significant at 1 per cent . The dependent variable in all columns is the log of gross output. The time period is 1995-2003. All variables are expressed in deviations from the 4 digit industry mean in the same year. The estimation method in columns (1) through (3) is OLS (with fixed effects in columns (2) and (3); .in columns (4) to (6) we use System-GMM (Blundell and Bond, 2000) and in column (7) we use Olley Pakes (1996). Standard errors in brackets under coefficients in all columns are clustered by establishment (i.e. robust to heteroskedacity and autocorrelation of unknown form). One step GMM results reported. All columns include age, foreign ownership and region dummies and a dummy taking value one if the firm belongs to a multi-firm enterprise group as additional controls. In columns (4) to (6) instruments are all plant level factor inputs lagged t-2 and before (when available) in the differenced equation (i.e. m_{t-2}, n_{t-2}, k_{t-2}, c_{t-2}, q_{t-2}) and lagged differences in the levels equation (Δm_{t-1}, Δn_{t-1}, Δk_{t-1}, Δc_{t-1}). Serial correlation tests are LM tests of the first differenced residuals (See Arellano and Bond, 1991). Sargan-Hansen Test of instrument validity is a test of the over-identification restrictions. Olley Pakes uses a fourth order series expansion to approximate the phi function.

Software (Table 4)

The software capital follows a very similar pattern to the one described for hardware. In particular, the variable appears with a positive and significant coefficient across all specification, ranging from a value of 0.049 (basic OLS estimation) to the value of 0.019 (Olley Pakes). The main complication of the software regressions arises with the GMM estimations. In the static model the Sargan test is rejected; in the dynamic model the Sargan test is not rejected, but the COMFAC restrictions are rejected. These results – possibly due to the greater degree of noise associated with the software capital estimates – undermine the reliability of the GMM estimates.

In terms of the point estimates, the coefficients on software capital tend to be similar to – but slightly lower – than the ones shown for hardware. This result is confirmed when we run the basic fixed effects estimation on the sample for which we have both hardware and software capital (not reported). In this sample of 18,325 observations the coefficient on hardware capital is 0.0266 and the one on software is 0.0203, and both are significant at the 1 per cent level.[12]

Overall the different estimators produce estimates of the elasticity of output with respect to IT in the range of 0.02 to 0.04. It is reassuring to find that IT capital does indeed appear to have a positive impact on raising output, consistent with the findings from the new micro studies in the US and elsewhere. Although the coefficient is larger than the share of IT capital in output (about 1 per cent to 1.5 per cent in Table 2 and 3) the difference is not as dramatic as has been found in other studies such as Brynjolfsson and Hitt (2003).[13]

Robustness checks

We considered several experiments regarding our assumptions concerning the construction of the IT capital stock. First, there is uncertainty over the exact depreciation rate for IT capital, so we experimented with a number of alternatives including the extreme case of 100 per cent depreciation which effectively treats IT investment as a flow. Secondly, we do not know the initial IT capital stock for ongoing firms the first time they enter the sample. Our base method is to assume that the IT investment rate is the same as the industry average IT investment rate in the base period. An alternative is to assume that the plant's share of the IT stock is the same as its share of employment in the industry in the base period. This affects the magnitude of the coefficient on IT (results not reported, available upon request) but it always remains positive and significant.

We estimated the production function separately for manufacturing and services to evaluate the role of industry heterogeneity. Both the hardware and the software stocks remained positive and highly significant in all the specifications and their coefficients were generally slightly higher in services than manufacturing – although the same happened for normal capital and employment.

Conclusions

This article describes the main sources and the methodology used to build the first firm-level estimates of IT (hardware and software) capital. Matching the IT variable with the ABI, we are able to exploit a very rich establishment level panel dataset to estimate the effects of IT on productivity. We find robust evidence that IT has a positive and significant correlation with productivity even after controlling for many factors such as fixed effects, and using various econometric methodologies that take into account problems related to measurement error and inputs endogeneity. We estimate that a doubling of the IT stock is associated with an increase in productivity of between 2 per cent and 4 per cent, a result which is in line with the existing literature.

This article covers a very small part of the IT research agenda that is currently in place at ONS combining various firm level data sources. In a related paper, Bloom *et al.* (2005) combine the IT stocks with the Annual Inquiry into Foreign Direct Investments (AFDI) and analyse the returns to IT investments made by a sample of UK and non UK multinationals. They also look at the interaction between IT and skills combining the ONS firm level data with regional and sector-specific measures of skills built from the Labour Force Survey. In this edition of *Economic Trends*, S. Farooqui reports on the research conducted combining the IT stocks presented in this article with additional measures of firm level technological choices (E-commerce activity, number of people using computers in the firm, etc.) The ongoing data collection conducted by ONS will hopefully extend the sample of the IT stocks, opening the way to a very wide range of research opportunities.

Notes

1. This article draws heavily from the paper 'It ain't what you do, it's the way you do I.T: testing explanations of productivity growth using U.S. affiliates', by Bloom N, Van Reenen J and Sadun R. Available at www.statistics.gov.uk/CCI/article.asp?ID=1236.

2. For a more detailed description see Barnes and Martin (2002).

3. The extrapolation was done by simple averaging, but we also tried more sophisticated quarterly models taking into account the quarter surveyed. This made practically no difference.

4. Because we have a short time series for many firms we are careful to check the robustness of the results for different assumptions over the treatment of the initial year of the IT stock. We consider different ways to impute the initial value, and also show that using just the flow measures (that is, not using any imputations for the initial year) gives us qualitatively similar results.

5. We are careful to check for differences in coefficients due to the IT measures coming from different surveys. We could not reject the assumption that there were no significant differences in the IT coefficients arising from the fact that the IT stocks were built from different surveys.

6. The results presented in the tables are robust to the choice of different ratios.

7. According to the ABI, an alternative explanation may be that the software question was misinterpreted by the reporting firms, especially in the first years in which the question was included. This might have led the firms to report the software expenditures as included in the hardware response. Also, software expenditures are sometimes accounted as current expenses rather than capitalised items.

8. This uses a version of the multivariate generalized mean value theorem (for example, Thomas, 1968). The production function is therefore much more general than simply Cobb-Douglas.

9. We will generally use the four digit industry mean at time t as the reference point for $_{xt}$, but we also experimented with alternatives such as the four digit industry year median.

10. Griliches and Mairesse (1997), Olley and Pakes (1996) or Levinsohn and Petrin (2003).

11. The transformation of variables into deviations from the industry mean helps stability and it may be that there is much less measurement error in this mandatory establishment survey than the typical firm study using accounting data.

12. A similar comparison for the GMM and the Olley Pakes methodologies are complicated by the lack of a sufficient number of consecutive observations.

13. There are a number of possible reasons for the differences. Most obviously, Brynjolfsson's data is from the US whereas ours is from the UK – and a related paper by Bloom, Sadun and Van Reenen (2005) shows that there appears to be larger IT coefficients for US firms than for UK firms. Other differences include:

    • we are using more disaggregated data (establishments rather than worldwide accounts of firms)

    • our measure of IT capital is constructed in the standard way from flows of expenditure whereas BH use a measure based on pricing different pieces of IT equipment

    • our sample is much larger and covers a more recent time period

    • our estimation techniques are different.

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Appendix: Econometric methods

System GMM

The basic equation we wish to estimate can be written in simplified form as:[1]

$$q_{it} = \theta x_{it} + u_{it} \qquad (A2)$$

Where θ is the parameter of interest. Assume that the stochastic error term, u_{it}, takes the form

$$u_{it} = \eta_i + \tau_t + \omega_{it} \qquad (A3)$$

$$\omega_{it} = \rho \omega_{it-1} + \upsilon_{it}$$

The τ_t represent macro-economic shocks captured by a series of time dummies, η_i is an individual effect, and υ_{it} is a serially uncorrelated mean zero error term. The other element of the error term, ω_{it} is allowed to have an AR(1) component (with coefficient ρ) which could be due to measurement error or slowly evolving technological change Substituting (A3) into (A2) gives us the dynamic equation

$$q_{it} = \pi_1 q_{it-1} + \pi_2 x_{it} + \pi_3 \xi x_{it-1} + \eta_i^* + \tau_t^* + \upsilon_{it} \qquad (A4)$$

The common factor restriction (COMFAC) is $\pi_1 \pi_2 = -\pi_3$. Note that $\tau_t^* = \tau_t - \rho \tau_{t-1}$ and $\eta_i^* = (1-\rho)\eta_i$.

In the main results section we present several econometric estimates of production functions. The most rigorous approach follows that recommended by Blundell and Bond (2000) that uses a 'system GMM' approach to estimate equation (A4) and then imposes the COMFAC restrictions by minimum distance. We now turn to describing the GMM approach in more detail.

If we allow inputs to be endogenous we will require instrumental variables. In the absence of any obvious natural experiments we consider moment conditions that will enable us to construct a GMM estimator for equation (A4). A common method would be to take first differences of (A4) to sweep out the fixed effects:

$$\Delta q_{it} = \pi_1 q_{it-1} + \pi_2 \Delta x_{it} + \pi_3 \Delta \xi x_{it-1} + \Delta \tau_t + \Delta \upsilon_{it} \qquad (A5)$$

Since υ_{it} is serially uncorrelated the moment condition

$$E(x_{it-2} \Delta \upsilon_{it}) = 0 \qquad (A6)$$

ensures that instruments dated t-2 and earlier[2] are valid and can be used to construct a GMM estimator for equation (4) in first differences (Arellano and Bond, 1991). A problem with this estimator is that variables with a high degree of persistence over time (such as capital) will have very low correlation between their first difference (Δx_{it}) and the lagged levels being used an instrument (for example x_{it-2}). This problem of weak instruments can lead to substantial bias in finite samples. Blundell and Bond (1998) point out that under a restriction on the initial conditions another set of moment conditions are available:[3]

$$E(\Delta x_{it-1}(\eta_i + \upsilon_{it})) = 0 \qquad (A7)$$

This implies that lags of the first differences of the endogenous variables can be used to instrument the levels equation (A4) directly. The econometric strategy is then to combine the instruments implied by the moment conditions (A6) and (A7). We stack the equations in differences and levels (that is, (A4) and (A5)). We can obtain consistent estimates of the coefficients and use these to recover the underlying structural parameters in (A2).

The estimation strategy assumes the absence of serial correlation in the levels error terms (υ_{it}).[4] We report serial correlation tests in addition to the Sargan-Hansen test of the over-identifying restrictions in all the GMM results.[5]

This GMM 'system' estimator has been found to perform well in Monte Carlo simulations and in the context of the estimation of production functions (Blundell and Bond, 2000). The procedure should also be a way of controlling for transitory measurement error (the fixed effects control for permanent measurement error).

Olley Pakes

Reconsider the basic production function (aggregating the variable inputs into labour and the quasi-fixed inputs into capital)

$$q_{it} = \alpha^L l_{it} + \alpha^k k_{it} + \omega_{it} + \eta_{it} \qquad (A8)$$

The 'efficiency term', ω_{it}, is the unobserved productivity state that will be correlated with both output and the variable input decision. We assume that capital is predetermined and current investment (which will react to productivity) takes one period before it becomes productive. Under the assumptions specified in Pakes (1994) we can show that the investment policy function is monotonic in the unobserved productivity state and capital. This function can therefore be inverted to express ω_{it} as a function of investment and capital.

$$\omega_{it} = \widetilde{\omega}(i_{it}, k_{it})$$

The first stage of the OP algorithm uses this invertibility result to re-express the production function as:

$$q_{it} = \alpha_l l_{it} + \alpha_k k_{it} + \widetilde{\omega}(i_{it}, k_{it}) + \eta_{it} == \alpha_l l_{it} + \phi(i_{it}, k_{it}) + \eta_i$$

where

$$\phi(i_{it}, k_{it}) = \phi_t = \widetilde{\omega}(i_{it}, k_{it}) + \alpha_k k_{it}$$

We approximate this function with a series estimator that previous applications have shown to be close to the fully non-parametric approximation. We can use this first stage results to get estimates of the coefficients on the variable inputs.

The second stage of the OP algorithm is

$$q_{it}^* = q_{it} - \alpha_l l_{it} = \alpha_k k_{it} + \omega_{it} + \eta_{it}$$

Note that the expectation of productivity conditional on last period's information set is

$$\omega_{it} \mid x_{it=1} = E[\omega_{it} \mid \omega_{it-1}, \chi_{it} = 1] + \xi_{it}$$

where $[\chi_{it} = 1]$ indicates that the firm has chosen not to shut down (in the empirical results we experiment with also allowing for a selection stage over the decision to exit). This follows from the assumption that unobserved productivity evolves as a first order Markov process. Again we assume that

we can approximate this relationship with a high order series approximation $g(\omega_{it-1})$.

Substituting this in to the second stage and taking expectations conditional on last period's information set (denoted I_{t-1}) gives us

$$E\,(q_{it}{}^{*}\,|\,I_{t-1}) = \alpha_{k}k_{it} + g[\phi\,(i_{it-1},\,k_{it-1}) - \alpha_{k}k_{it-1}]$$

Since we already have in hand estimates of the ϕ_{t-1} function this amounts to estimating by Non-Linear Least Squares (NLLS). This now gives us all the relevant parameters of the production function.[6]

Notes

1. In this and in the following paragraph all the inputs and the output variable are expressed in deviations from the year-SIC4 mean.

2. Additional instruments dated t-3, t-4, etc. become available as the panel progresses through time.

3. The conditions are that the initial change in productivity is uncorrelated with the fixed effect $E\,(\Delta y_{i2}\eta_{i}) = 0$ and that initial changes in the endogenous variables are also uncorrelated with the fixed effect $E\,(\Delta y_{i2}\eta_{i}) = 0$

4. If the process is MA(1) instead of MA(0) then the moment conditions in (6) and (7) no longer hold. Nevertheless $E\,(\chi_{it-3}\Delta\upsilon_{it}) = 0$ and $E\,\Delta(\chi_{it-2}\,(\eta_{i}+\upsilon_{it})) = 0$ remain valid so earlier dated lags could still be used as instruments. This is the situation empirically with the wage equations.

5. These are based on the first differenced residuals so we expect significant first order serial correlation but require zero second order serial correlation for the instruments to be valid. If there is significant second order correlation we need to drop the instruments back a further time period (this happens to be the case for the wage equation in the results below).

6. There are numerous extensions to the basic Olley-Pakes methodology that have been suggested. First, we utilize the additional selection correction originally suggested by the authors. Second, Levinsohn and Petrin (2003) suggest using intermediate inputs as an alternative proxy for the unobserved productivity term. This has attractions in plant level data where investment is zero in a non-trivial number of cases.

   Ackerberg and Caves (2003) and Bond and Soderbom (2005) emphasis the identification problems underlying the original OP set up which implicitly requires variation in firm specific input prices. The latter argue for the GMM approach discussed in the previous sub-section which is identified in the presence of differential adjustment costs. Katayama *et al* (2003) propose an approach that takes imperfect competition more seriously and allows for differential firm specific mark-ups and implement a nested logit approach. Unfortunately their approach requires constant marginal costs and instant adjustment of the capital stock – rather unpalatable assumptions in our context.

Information and Communication Technology use and productivity

Shikeb Farooqui
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This article presents the main findings from a strand of research aimed at bringing together a range of interdependent metrics on Information and Communications Technology (ICT) use in a single framework, to study the relationship between them, and assess their impact on firm level productivity. This is the first study to bring together such a wide range of IT and CT metrics; one of its intended effects is to put the 'C' into ICT. Analysis has been conducted for major sectors across the UK economy to help policy makers assess which metrics should be targeted for measurement and relative importance in terms of productivity impact.

Introduction

Recent years have witnessed a surge in interest in Information Technology (IT) and its impact on productivity. The initial growth accounting literature, which has consistently found a positive association between IT and productivity, has increasingly been complimented with similar findings from firm-level studies. Due to differences in international survey design, definitions and limited data availability these studies have, however, focused on varying aspects and measures of the new economy.

Maliranta and Rouvinen (2002) have shown productivity effects associated with employee use of computers and the internet for the Finnish economy. In the USA, firm-level studies of computer networks in manufacturing firms have found a positive association between IT and productivity.[1] Similar results are available for manufacturing firms in Japan (Motohashi, 1999, 2002). In the UK Clayton and Goodridge (2002) have looked at e-business use and labour productivity; their results are supported by evidence on productivity and pricing effects of ecommerce. More recently, Bloom, Sadun and Van Reenen (2005) find productivity effects associated with IT investment using UK business returns from investment surveys.

We bring together these measures under one framework to assess the impact of each on different business models across different sectors. There are clearly linkages between the different metrics; IT investment supports IT enabled employees and computer networks and telecoms use is necessary to equip the workforce with Internet and e-commerce. But, it is important to consider what these individual components are measuring and why any analysis on ICT impact should include one or more of these measures.

Hardware capital stock, will include expenditure on network servers and computers etc. but also contains expenditure on operating platforms and other application-specific software programs that are built into the hardware. It therefore represents fixed investment in IT infrastructure and to some extent encapsulates all the other IT measures.

Software capital will capture both purchased software, consisting of packaged application-specific and non-application programs but mostly purchases of customised software, and to a small extent expenditure on software produced in-house for use within the firm. In both cases software capital embodies extensions and changes to the basic IT infrastructure specific to the firm-systems re-engineering that leads to improved efficiency and productivity.

'Employees using ICT', as a measure, is likely to embody human capital, work organisation and structure and management attitude towards knowledge-sharing. Whereas, telecommunications service use provides a general proxy for external relationships, e-commerce provides a more specific measure of commercial infrastructure.

Reported below are the main findings for the manufacturing and service sectors. A more detailed exposition of the analysis and results for individual service sectors can be found in *IT use by firms and employees: Productivity evidence across industries*, Office for National Statistics (ONS) research paper series.

Data

Financial information at firm level is gathered through the Annual Business Inquiry (ABI). This survey provides information on employment, gross output, turnover and material inputs, including spend on telecommunication services and firm characteristics such as ownership status and whether the firm is part of a bigger enterprise group. The Investment section of the ABI is used to construct our non-IT capital stock. Since 2000 the ABI includes a section on e-commerce which we use to identify firms that trade electronically.

The E-commerce Inquiry, begun in 2000, is an annual survey dedicated to collecting data on ICT use. Since 2001 it has collected data on the proportion of the labour force equipped with ICT. Both surveys population-sample the largest firms and run a stratified sample on small and medium sized enterprises. Matching information from the two sources provides a valuable link between ICT use and productivity. The E-commerce survey can also be used to provide more detailed information on the nature of electronic trade: distinguishing between types of product sold and the medium of trade, but the ABI provides a larger sample size and is our choice survey on e-commerce information.

The IT capital stock is constructed from expenditure returns of surveyed firms. Details of construction methodology can be found in Bloom *et al* (2005). Although, our dataset runs from 2000 to 2003, most of the information relates to the years 2001 to 2003.

Table D1
Firm characteristics in manufacturing by type of trade decision, 2002

Percentages (relative to SIC4 digit industry mean)

		Employment	Value Added per employee	Gross Output per employee	Capital per employee	Telecom spend per employee	Hardware per employee	Software per employee	Share of employees with access to computer	Share of employees with access to Internet
e-buy	Mean	109	103	102	104	102	109	105	110	109
	Std Deviation	105	43	50	67	61	109	124	44	66
	Observations (no-s)	765	765	765	765	765	765	765	145	145
e-sell	Mean	105	100	101	100	100	100	102	102	103
	Std Deviation	93	43	50	64	59	98	121	50	68
	Observations (no-s)	942	942	942	942	942	942	942	196	196
None	Mean	89	98	99	98	99	95	93	92	89
	Std Deviation	76	40	43	59	54	112	114	39	57
	Observations (no-s)	570	570	570	570	570	570	570	74	74

Table D2
Firm characteristics in services by type of trade decision, 2002

Percentages (relative to SIC4 digit industry mean)

		employment	Value Added per employee	Gross Output per employee	Capital per employee	Telecom spend per employee	Hardware per employee	Software per employee	Share of employees with access to computer	Share of employees with access to Internet
e-buy	Mean	121	103	104	105	104	109	106	101	104
	Std Deviation	221	60	73	100	84	128	149	58	80
	Observations (no-s)	1,283	1,283	1,283	1,283	1,283	1,283	1,283	334	334
e-sell	Mean	115	101	102	103	100	107	102	106	112
	Std Deviation	218	60	68	93	75	118	129	66	94
	Observations (no-s)	1,057	1,057	1,057	1,057	1,057	1,057	1,057	307	307
None	Mean	81	98	97	96	97	92	94	94	89
	Std Deviation	131	62	71	111	79	109	132	80	103
	Observations (no-s)	1,150	1,150	1,150	1,150	1,150	1,150	1,150	256	256

A sizeable proportion of our sample trade electronically: approximately 45 per cent of businesses run electronic procurement systems and 44 per cent of businesses receive orders via an electronic medium. Tables D1–D2 present descriptive statistics for our sample of manufacturing and service sector firms based on their decision to trade over electronic platforms. Variables are expressed as deviations from their four digit industry means.

Unsurprisingly, the decision to trade electronically is accompanied by higher than average spend on telecommunications and IT infrastructure. E-traders also have a higher share of ICT-equipped employees. Characteristics vary by sector: in manufacturing, firms with e-procurement systems are more capital intensive, spend up to 2 per cent more than the industry average on telecoms, 8 per cent more on hardware capital and have 10 per cent more ICT-equipped employees.

In services e-buyers are again the bigger spenders on IT and CT, but e-sellers employ a higher share of ICT equipped labour. In 2002, the Internet-equipped labour share for e-sellers was 11 per cent higher than the industry average.

In nearly all sectors it is the firms with e-procurement systems in place that are the most productive. In terms of value-added per worker e-sellers are more productive than the industry average, however this difference is minimal. Retail is the only sector where firms with electronic links to customers enjoy higher labour productivity than e-procurers.[2] Overall, the gains to electronic trade are not very large compared to industry averages and, more importantly, to firms without electronic trading platforms.

The descriptive statistics (not presented here)[3] also indicate that there is a degree of experimentation in younger firms. Regardless of the sector we look at, young firms are generally more capital-intensive. They spend more than the industry average on IT investment and CT and have higher ICT-equipped labour share, however, this does not necessarily translate into much higher value added per employee compared to older firms.

Figures 1 and 2 show the relationship between the ICT equipped labour share and labour productivity. The figures reported are unweighted sample averages but the message is clear: the most productive firms are those that employ a high share of labour with frequent access to ICT. Of course, there are likely to be a multitude of factors driving this representation. A high ICT equipped labour share may reflect a high skill intake, or indeed work organisation and management practices that are conducive to a productive environment. We tackle these issues in the following sections.

Econometric strategy

The modelling strategy laid out in Bloom *et al* (2005) forms the basis of our estimation technique. We assume that firm *i* faces a generalised Cobb-Douglas production function $Q_{it} = A_{it} Ft(X_{it})$, where Q is the output of firm i, $F(X)$ is the part of the production that is common to all firms within an

Figure 1

ICT equipped labour share and labour productivity in manufacturing

Value added per employee
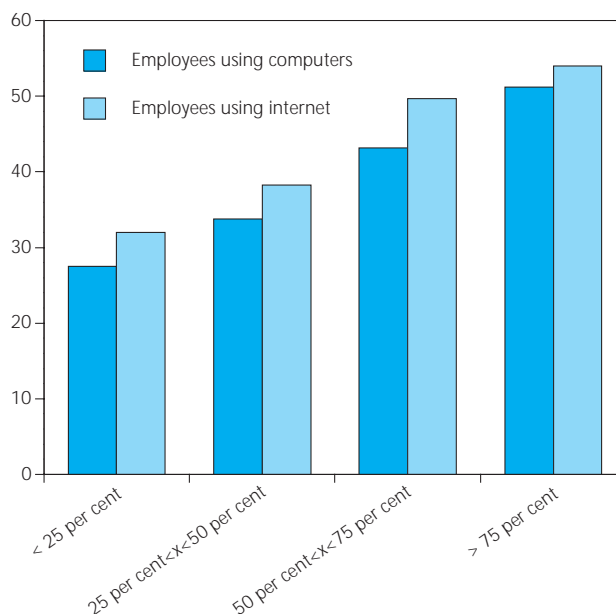
Figure 2

ICT equipped labour share and labour productivity in services

Value added per employee
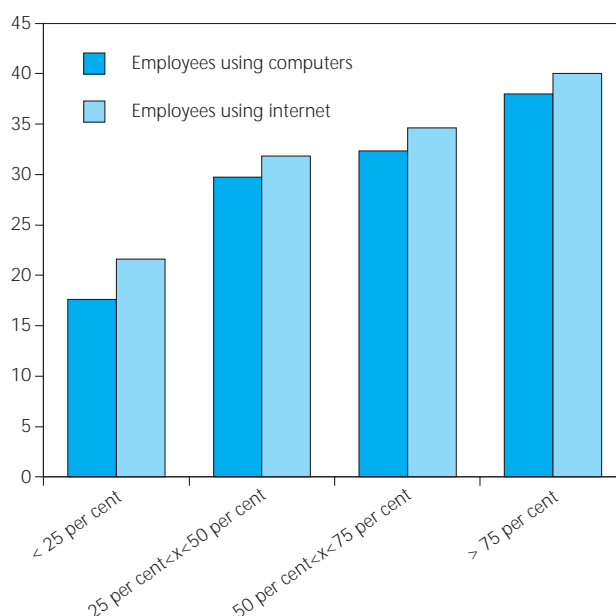
industry and *A* refers to firm-specific efficiency not related to the input factors. X_{it} includes factor inputs such as capital and labour.

Using a logarithmic transformation we can rewrite our production function as:[4]

$$q_{it} = \alpha_{it} + \alpha_{it}^{NIT} k_{it} + \alpha_{it}^{H} hw_{it} + \alpha_{it}^{S} sw_{it} + \theta_{Lict}(l_{ict,it}/l_{it}) + (\alpha_{it}^{NIT} + \alpha_{it}^{H} + \alpha_{it}^{S} + \beta_{L} - 1)l$$

where q is a measure of output per employee, k is non-IT capital per employee, l is labour input and hw (hardware) and sw (software) denote our measures of IT capital per employee.

As in Maliranta and Rouvinen (2002) we assume that all workers are perfect substitutes, however, we allow these workers to have different marginal productivities depending on whether they use ICT (l_{ict}) or not (l_o).

Lehr and Lichtenberg (1999) propose improvements in communication as likely to improve overall efficiency in production and lead to proportionate increases in productivity across all factors. We are particularly interested in specific forms of communication that are captured in computer networks. We consider representing total factor productivity in the following way:

$$a_{it} = \alpha_i + \alpha_1 t + \alpha_2 etrade + \gamma_j z_{it} + u_{j,it}$$

where t represents a firms rental payment on telecommunications and etrade is a dummy variable that identifies firms using computer networks to trade electronically. Criscuolo and Waldron (2003) find productivity impacts vary with type of trade. We therefore distinguish between selling and buying over electronic networks. Other observable factors such as multinational ownership, regional location and affiliation to multi-plant groups are captured in z. The equation to be estimated can then be written as:

$$q_{it} = \alpha_i + \alpha_1 t + \alpha_2 etrade + \alpha_{it}^{NIT} k_{it} + \delta_{it}^H hw_{it} + \delta_{it}^s sw_{it} + \theta_{lict} (l_{ict,it}/l_{it}) +$$

$$(\sum \alpha_{it}^{NIT} + \beta_L - 1)l + \gamma_j z_{it} + u_{j,it}$$

Our estimation technique relies on Least Squares regressions that are fully robust to a generalised heteroskedastic error term structure that allows for serial dependence over time. It is likely that our results will be affected by unobserved factors such as management practices. Fixed effects would help to control for such time-invariant factors, however the reliability of results is hampered by measurement error.[5] In order to facilitate international comparison, we use value added as measure of output. This also has the additional advantage of allowing us to discern the pricing impacts that are an inherent part of electronic trade.

We analyse the impact of all the ICT variables mentioned above, but the results here focus on the impact of employee use of ICT and telecommunications. Results relating to IT investment and e-commerce are briefly mentioned and interested readers can find the accompanying tables and explanations in the long version *IT use by firms and employees: Productivity evidence across industries*, ONS research paper series.

Results

IT investment

Tables 1 and 2 report regression outputs for manufacturing and services. The first column, in each table, shows the impact of IT investment when modelled on its own. Across all specifications, both our measures of IT capital are positive and significant. In manufacturing, the elasticity of hardware with respect to productivity is 5.6 per cent. In services it is markedly higher at 8.1 per cent.[6] The impact of software is slightly lower than of hardware in both manufacturing and services. This is likely to be due to a higher degree of measurement error associated with software. The coefficients on the IT measures are systematically higher for services.

Employee use of ICT

In their study Maliranta and Rouvinen (2002) identify the computer and Internet equipped labour share as proxies for IT investment. By capturing the degree of involvement of the workforce with ICT these measures also act as indicators of work organisation and skills. In practice these metrics are also likely to measure the electronic exchange of information between employees – and with outside sources – so may give an imperfect measure of networking and knowledge management currently available at firm level.

The data on employees using computers and the Internet is, not surprisingly, correlated with IT investment at firm level. It is also strongly dependent on industry sector. However, the identifiable effects of employee computer / Internet use on firm level productivity are large and significant.

The second column in each table, shows results on employees using computers. In addition to the impact of IT investment, employee use of computers has a positive impact on firm productivity. In manufacturing, use of computers by the workforce raises productivity by 2.1 per cent for every additional 10 per cent of employees IT-enabled.

For services we also find an additional impact of employee use over and above that accounted for by IT investment. Partly because of the higher impact of investment, and partly due to diminishing returns the impact is slightly lower, with increases of 1.5 per cent for every 10 per cent enabled.

The use of the Internet by the workforce has a positive impact on productivity above that explained by IT investment (Column 3, Tables 1 and 2). In manufacturing, enabling staff with the Internet raises productivity by 2.9 per cent for every 10 per cent enabled. Unlike manufacturing we do not find significant differences in impact between Internet and computer use in services.

ICT use in manufacturing

Dependent variable	(1) ln(VA/EMP)	(2) ln(VA/EMP)	(3) ln(VA/EMP)	(4) ln(VA/EMP)	(5) ln(VA/EMP)
Log of non-IT capital per employee	0.223*** (0.013)	0.256*** (0.029)	0.257*** (0.029)	0.207*** (0.014)	0.221*** (0.028)
Log of employee	0.032*** (0.010)	0.043* (0.023)	0.043* (0.023)	0.044*** (0.010)	0.068*** (0.023)
Log of hardware per employee	0.056*** (0.007)	0.038** (0.015)	0.037** (0.015)	0.012 (0.020)	−0.019 (0.043)
Log of software per employee	0.041*** (0.006)	0.032** (0.013)	0.031** (0.013)	0.038*** (0.006)	0.034*** (0.013)
Computer equipped labour share		0.215*** (0.064)			
Internet equipped labour share			0.295*** (0.073)		0.239*** (0.073)
Log of telecom spend per employee				0.075*** (0.013)	0.093*** (0.026)
Hardware*telecom spend				0.009** (0.005)	0.011 (0.009)
Skills Proportion of people with a college degree in industry-region cell		0.235 (0.262)	0.300 (0.261)		
Observations	5,397	1,317	1,317	5,397	1,394
R-squared	0.46	0.64	0.65	0.47	0.64

Robust standard errors in parentheses
* significant at 10 per cent; ** significant at 5 per cent; *** significant at 1 per cent.
The dependent variable in all columns is the log of value added per employee (measured in £ 000s). Non-IT capital, IT capital and Telecom spend are all measured per employee in £ 000s and expressed in logs in the regression. The time period is 2000–2003. Standard errors in brackets under coefficients are clustered by establishment and robust to heteroskedasticity and serial autocorrelation. All variables are expressed in deviations from the 4digit Industry mean in the same year. Telecom Spend per employee is measured in nominal terms. All regressions include age, region, ownership and group dummies.

It can be argued that the employee use measure is simply acting as a surrogate for skills. Indeed there is a growing literature on the complementary relationship between IT investment and use and skills. To account for the skills effect we have included a skills measure in regression specifications based on regional educational attainment levels available to the SIC 2-digit industry. The results are robust and suggest employee use of ICT is – as an indicator – far more than a proxy for IT investment.

Telecommunications spend

Communications technology equipment input is, for most firms outside the communications sector, dominated by purchase of external infrastructure services. Less than 15 per cent of investment in telecommunications products is made by firms outside the communications sector for their own use.[7] Because most firms use external telecommunications infrastructure – purchased from outside service suppliers – it is difficult to reflect the contribution made by the 'Communications' element of ICT in the same way as we

have for IT. So the best measure of telecommunications use by firms is their external spend on purchased services. We use telecom spend per employee, identified through the ABI, as an indicator of communications infrastructure.

Telecoms use has a large positive and significant effect on firm output across manufacturing and services. It explains up to 7.5 per cent of productivity differences in manufacturing firms-after accounting for the effects of IT capital (Column 4, Table 1). Within manufacturing it also reinforces the productivity effects associated with hardware investment (Column 4 interaction between hardware and telecom spend).

Similar results hold for the service sector (Column 4, Table 2). The impact of telecom use does vary across the service sectors. It appears to be greatest in distribution services where the IT–CT interaction replaces hardware investment as the main productivity influence. This suggests that the role of IT in co-ordinating and managing complex supply chains and external links is much more critical than as a driver of internal efficiency.

Table 2
ICT use in services

Dependent variable	(1) ln(VA/EMP)	(2) ln(VA/EMP)	(3) ln(VA/EMP)	(4) ln(VA/EMP)	(5) ln(VA/EMP)
Log of non-IT capital per employee	0.268*** (0.012)	0.274*** (0.025)	0.264*** (0.025)	0.245*** (0.012)	0.249*** (0.025)
Log of employee	–0.047*** (0.007)	–0.021*** (0.015)	–0.060*** (0.015)	–0.055*** (0.008)	–0.011 (0.016)
Log of hardware per employee	0.081*** (0.007)	0.097*** (0.014)	0.095*** (0.014)	0.032** (0.016)	0.094** (0.039)
Log of software per employee	0.055*** (0.006)	0.046*** (0.012)	0.044*** (0.012)	0.053*** (0.006)	0.037*** (0.012)
Computer equipped labour share		0.022 (0.053)			
Internet equipped labour share			0.154*** (0.056)		0.128** (0.055)
Log of telecom spend per employee				0.074*** (0.013)	0.064*** (0.022)
Hardware*telecom spend				0.010*** (0.003)	-0.001 (0.007)
Skills Proportion of people with a college degree in industry-region cell		0.206 (0.420)	0.158 (0.419)		
Observations	8,255	2,231	2,231	8,255	2,272
R-squared	0.60	0.70	0.71	0.60	0.70

Robust standard errors in parentheses.
* significant at 10 per cent; ** significant at 5 per cent; *** significant at 1 per cent.
The dependent variable in all columns is the log of value added per employee (measured in £'000s). Non-IT capital, IT capital and Telecom spend are all measured per employee in £'000s and expressed in logs in the regression. The time period is 2000–2003. Standard errors in brackets under coefficients are clustered by establishment and robust to heteroskedasticity and serial autocorrelation. All variables are expressed in deviations from the 4digit Industry mean in the same year. Telecom Spend per employee is measured in nominal terms. All regressions include age, region, ownership and group dummies.

Column 5 in Tables 1 and 2 presents the impact of employees using the Internet alongside telecommunication spend. Note that the interaction between hardware and telecom spend becomes insignificant and the effects of hardware also disappear (supporting our hypothesis that the employee use measure is a good indicator of networking within firms). However, effects of software and telecoms use remain strong and significant, suggesting that systems, communication and the effective use of both IT and CT is decisive to productivity in both manufacturing and services.

E-commerce

Work by Criscuolo and Waldron (2003) demonstrated, using UK data, that manufacturing firms which use e-commerce showed value added productivity gains associated with electronic buying and smaller productivity losses associated with electronic selling. Together with evidence showing a tendency for prices to decline among firms selling electronically compared to those which do not, this was interpreted to show an overall efficiency gain associated with electronic process use and market price effects in favour of electronic buyers, through stronger price competition. This study extends their analysis in two ways: firstly we model the effects of ecommerce alongside our other measures of ICT use, and we also extend the analysis of e-commerce to the service sector.

Our results corroborate the existing findings in the literature. In commodity markets such as manufacturing, e-selling negatively impacts on value added productivity resulting from added price pressures. Manufacturing firms gain from e-procurement and the net effect of e-trade is to raise productivity by 1–2 per cent. The impact of e-trade in services is more complex and varies between detailed sectors. Distribution services, however, exhibit gains from e-selling of around 4 per cent.

Age of firm

To assess whether the impact of IT varies within sectors we split our sector samples by the age of the firm. Firms are categorised as young and old in relation to their four digit

Table 3
IT capital and use by age of firm in manufacturing

Dependent variable	(1) ln(VA/EMP)	(2) ln(VA/EMP)	(3) ln(VA/EMP)	(4) ln(VA/EMP)	(5) ln(VA/EMP)	(6) ln(VA/EMP)
Sample	Young firms	Young firms	Young firms	Old firms	Old firms	Old firms
Log of non-IT capital per employee	0.192*** (0.022)	0.183*** (0.053)	0.207*** (0.052)	0.263*** (0.018)	0.339*** (0.043)	0.329*** (0.043)
Log of employee	0.006 (0.016)	0.020 (0.048)	0.018 (0.046)	0.052*** (0.014)	0.056 (0.035)	0.051 (0.034)
Log of hardware per employee	0.063*** (0.012)	0.002 (0.028)	0.014 (0.030)	0.047*** (0.008)	0.067*** (0.020)	0.062*** (0.020)
Log of software per employee	0.045*** (0.011)	0.050* (0.029)	0.049* (0.029)	0.032*** (0.008)	0.018 (0.018)	0.016 (0.018)
Computer equipped labour share		0.438*** (0.123)			0.093 (0.084)	
Internet equipped labour share			0.337** (0.139)			0.259** (0.108)
Skills Proportion of people with a college degree in industry-region cell	0.027 (0.234)	−0.201 (0.735)	−0.332 (0.732)	−0.111 (0.167)	0.331 (0.334)	0.469 (0.319)
Observations	2,026	526	526	3,160	791	791
R-squared	0.53	0.78	0.77	0.55	0.72	0.73

Robust standard errors in parentheses.
* significant at 10 per cent; ** significant at 5 per cent; *** significant at 1 per cent.
The dependent variable in all columns is the log of value added per employee (measured in £ 000s). Non-IT capital, IT capital and Telecom spend are all measured per employee in £ 000s and expressed in logs in the regression. The time period is 2000–2003. Standard errors in brackets under coefficients are clustered by establishment and robust to heteroskedasticity and serial autocorrelation. The age of a firm is determined by median age in its four digit sector. All variables are expressed in deviations from the 4 digit Industry mean in the same year. All regressions include age, region, ownership and group dummies. Young firms are differentiated from old firms by median age in 4 digit industry.

Table 4
IT capital and use by age of firm in services

Dependent variable	(1) ln(VA/EMP)	(2) ln(VA/EMP)	(3) ln(VA/EMP)	(4) ln(VA/EMP)	(5) ln(VA/EMP)	(6) ln(VA/EMP)
Sample	Young firms	Young firms	Young firms	Old firms	Old firms	Old firms
Log of non-IT capital per employee	0.302*** (0.016)	0.342*** (0.035)	0.337*** (0.035)	0.253*** (0.014)	0.216*** (0.030)	0.209*** (0.030)
Log of employee	−0.026*** (0.010)	−0.063*** (0.021)	−0.061*** (0.021)	−0.032*** (0.009)	−0.038** (0.019)	−0.035* (0.019)
Log of hardware per employee	0.060*** (0.009)	0.082*** (0.020)	0.080*** (0.020)	0.083*** (0.008)	0.111*** (0.016)	0.110*** (0.016)
Log of software per employee	0.058*** (0.009)	0.048*** (0.019)	0.048*** (0.019)	0.056*** (0.007)	0.039*** (0.013)	0.038*** (0.013)
Computer equipped labour share		0.019 (0.084)			0.020 (0.066)	
Internet equipped labour share			0.168** (0.083)			0.110 (0.067)
Skills Proportion of people with a college degree in industry-region cell	0.367 (0.336)	0.447 (0.709)	0.421 (0.703)	−0.196 (0.237)	−0.138 (0.434)	−0.185 (0.430)
Observations	3,588	960	960	4,552	1,271	1,271
R-squared	0.71	0.81	0.81	0.68	0.74	0.75

Robust standard errors in parentheses.
* significant at 10 per cent; ** significant at 5 per cent; *** significant at 1 per cent.
The dependent variable in all columns is the log of value added per employee (measured in £ 000s). Non-IT capital, IT capital and Telecom spend are all measured per employee in £ 000s and expressed in logs in the regression. The time period is 2000-2003. Standard errors in brackets under coefficients are clustered by establishment and robust to heteroskedasticity and serial autocorrelation. The age of a firm is determined by median age in its four digit sector. All variables are expressed in deviations from the 4 digit Industry mean in the same year. All regressions include age, region, ownership and group dummies. Young firms are differentiated from old firms by median age in 4 digit industry.

industry median age. This specific categorisation allows the cohort of middle-aged firms to transition from young, at the beginning of our sample period, to old in later years. Results for manufacturing and services are presented in Tables 3 and 4.

For young manufacturing firms the total impact of IT investment, that is hardware and software capital, is as high as 12 per cent, significantly higher than the 8 per cent for older firms. In young firms the productivity effects of equipping employees with computers are more statistically significant (and bigger in terms of impact) than productivity effects associated with the level of IT investment. For each 10 per cent of the workforce, computer-enabled young firms see a return of 4.4 per cent. This mirrors the findings on IT investment but also suggests that employee use of ICT is a particularly valuable metric for younger firms entering manufacturing sectors.

The losses in value-added associated with e-selling in manufacturing are primarily driven by losses incurred by younger firms. Although older firms do not seem to show any gains from e-selling they do not experience significant losses either. E-procurement is just as beneficial for older firms as for the young and accounts for up to 5 per cent of the productivity difference between firms that trade electronically and those that do not.

In services, benefits from IT investment take longer to manifest as explained by the higher coefficient on hardware for older firms, however, employee access to the Internet is strongly significant for young firms. It is also in e-selling where older firms show an advantage and see gains of nearly 4 per cent. Similar dynamics are apparent in retailing where again the positive gains from e-selling, which are as high as 6 per cent, accrue primarily to older established firms.

The age effects of IT may reflect different competitive dynamics in manufacturing and services. Manufacturing firms are more likely to use IT to optimise value chains and operations, which can change quickly and require a certain degree of flexibility. Younger firms are generally more flexible, which facilitates adoption and implementation of newer technologies[8], allowing them to experiment more. Benefits from access to wider supply sources and reduced search costs which e-procurement brings are also larger for younger firms. The case for flexibility is strong in manufacturing; however, we also see a degree of learning. The impact of e-selling which is strong for young manufacturing firms but is not visible for older businesses suggest that this negative effect disappears as firms undertaking e-selling overcome initial set up costs, gain scale and learn how to operate the process more effectively.

In services, productivity gains stem from learning rather than flexibility. The gains from IT investment accrue to older firms that learn to use the technology to simplify the information needs associated with dealing with large numbers of end users. The key to services lies in building up client knowledge bases and customer relations, and once initial set up costs are overcome, gains are likely to come from channeling improved supply chain models and inventory management, especially in distribution services. This is reflected in a larger coefficient on

hardware capital for older firms compared to younger firms, but is more pronounced when we look at e-commerce, with the gains from e-selling primarily accruing to older firms.

In young service firms Internet-equipped labour share raises productivity by 1.7 per cent for each 10 per cent enabled and it does so without affecting the relationship between IT investment and productivity. A similar effect for computers is absent. This shows that the skills, communication links and organisation measured by use of the Internet have a specific and identifiable role for young service firms.

Conclusion

We bring together three different measures of IT use, and for the first time, explicitly model the effects of communications. Using our panel and Least Squares estimation techniques, we assess the relationship between these interdependent measures and their impact on productivity in the UK economy for years 2000 to 2004. The study looks at differences across sectors and within sectors by analysing the age of the firm.

Our results show differences in impact of IT investment across sectors, with the strongest gains in the services industry. In manufacturing, we find that younger firms are able to get more out of their IT investment than older firms. In young manufacturing firms, enabling employees with computers and Internet is a more significant driver of productivity than investment on its own.

In contrast, we find a degree of learning involved in the service sector where IT capital and networks are primarily used to build up client and service provision knowledge bases. This is strongly manifest in the e-commerce results for distribution services: established firms see positive gains in value added from e-selling.

For the first time we look at spending on telecommunication services as a possible driver of productivity and find a strong relationship between the two. We also find a strong association between IT investment and CT spend, with increased spending on the latter compounding the effects of IT investment.

Future work will involve improving our measure of communication infrastructure and looking at the adoption, usage and impact of broadband technologies. We also plan to build and implement improved measures of skills to look at complementarities between skills and ICT investment and use and resolve endogeneity concerns.

Notes

1. Atrostic and Nguyen (2002, 2004) incorporate a dummy computer network and business processes into standard production function approach and find positive impacts on productivity.

2. See long version for descriptive statistics and regression results for distribution (wholesale and retail) services *IT use by firms and employees: Productivity evidence across industries*, available at www.statistics.gov.uk/cci/article.asp?ID=1233

3. Available in long version.

4. Lowercase denotes the logarithmic transformation, that is, $\ln(X) = x$

5. Griliches and Mairesse (1997) present a general discussion of this problem with production functions and see Brynjolfsson and Hitt (1995, 1996, 2003) for an argument that is particularly relevant to ICTs.

6. See the accompanying *Economic Trends* article R Sadun, 'The role of IT in Firm Productivity' for other elasticity estimation techniques and results.

7. ONS Supply-Use Table 2002.

8. See Christensen and Rosenbloom (1995) for a detailed exposition.

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Tables

Notes to tables

Identification codes

The four-letter identification code at the top of each data column is the ONS reference for this series of data on our database. Please quote the relevant code if you contact us requiring any further information about the data.

Currency of data

All data in the tables and accompanying charts are current, as far as possible, to 29 November 2005.

Some data, particularly for the latest time period, are provisional and may be subject to revision in later editions.

Geographic coverage

Statistics relate mainly to the United Kingdom. Where figures are for Great Britain only, this is shown on the table.

Seasonal adjustments

Almost all quarterly data are seaonally adjusted; those not seasonally adjusted are indicated by the abbreviation NSA.

Money

There is no single correct definition of money. The most widely used measures are:

M0
This is the narrowest measure and consists of notes and coins in circulation outside the Bank of England and bankers' operational deposits at the Bank.

M4
This comprises notes and coin in circulation with the public, together with all sterling deposits (including certificates of deposit) held with UK banks and building societies by the rest of the private sector.

The Bank of England also publish data for liquid assets outside M4.

Conventions
Rounding may lead to inconsistencies between the constituent parts and the total in some tables.

A horizontal line between two consecutive figures indicates that the figures above and below the line have been compiled on different bases and are not strictly comparable. Footnotes explain the differences.

Billion denotes one thousand million.

Symbols used

..   not available

-     nil or less than half the final digit shown

+   a series for which measures of variability are given on page 155

†   data have been revised since the last edition; the period marked is the earliest in the table to have been revised

∗   average (or total) of five weeks

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Users can download time series, cross-sectional data and metadata from across the Government Statistical Service (GSS), using the site search and index functions from the homepage. Many datasets can be downloaded, in whole or in part, and directory information for all GSS statistical resources can be consulted, including censuses, surveys, journals and enquiry services. Information is posted as PDF electronic documents, or in XLS and CSV formats, compatible with most spreadsheet packages.

Time Series Data

The time series data facility on the website provide access to around 40,000 time series, of primarily macro-economic data, drawn from the main tables in our major economic and labour market publications. Users can download complete releases or view and download customised selections of individual time series.

Complete copies of *Economic Trends* can be downloaded from the following webpage:

http://www.statistics.gov.uk/statbase/ product.asp?vlnk=308

1.1 Selected monthly indicators

seasonally adjusted unless otherwise stated

		2003	2004	2005 Q1	2005 Q2	2005 Q3	2005 Aug	2005 Sep	2005 Oct	%Change Latest 3 months average previous 3 months
Output -chained volume measures (CVM) (2002 = 100 unless otherwise stated)										
Gross value added at basic prices	CGCE	102.5	105.6	106.5	107.0	107.4	..	..	..	0.4
Industrial production	CKYW	99.5	100.3	99.2	99.2	98.6	98.2	98.6	..	-0.6
Oil and gas extraction	CKZO	94.4	86.3	81.3	81.6	74.7	70.9	76.2	..	-8.4
Manufacturing	CKYY	100.1	102.0	101.5	101.3	101.6	101.7	101.4	..	0.4
Construction	GDQB	105.2	108.7	109.9	110.6	111.2	..	..	..	0.5
Car production (thousands)	FFAO	138.1	137.2	138.4	131.7	138.8	146.0	135.7	126.2	4.6
Domestic demand										
Retail sales volume (2000 = 100)	EAPS	116.6	123.6	124.9	125.6	126.2	126.0	126.8	127.0	0.7
GB new registrations of cars (000s)[1]	BCGT	2646.2	2598.8	697.9	594.4	677.1	84.2	417.6	..	13.9
Manufacturing:change in inventories (£m,CVM, reference year 2002)	DHBM	-727	-827	409	-527	6	..	..	..	
Prices (12 monthly % change) and earnings (3 month average)										
Consumer prices index[1]	CJYR	1.4	1.3	1.7	1.9	2.4	2.4	2.5	2.3	
Retail prices index[1]	CZBH	2.9	3.0	3.2	3.0	2.8	2.8	2.7	2.5	
Retail prices index[1] (less MIPS)[2]	CDKQ	2.8	2.2	2.2	2.2	2.4	2.3	2.5	2.4	
Producer output prices (less FBTP)[3]	EUAA	1.3	1.9	2.5	2.4	2.1	1.9	2.1	1.2	
Producer input prices[4]	EUAB	1.4	4.0	10.6	9.9	12.4	12.9	10.1	7.5	
GB average earnings -whole economy[5]	LNNC	..	..	4.5	4.1	4.1	4.2	4.1	..	
Foreign trade[6] (2002 = 100 volumes unless otherwise stated)										
UK balance on trade in goods (£ million)	BOKI	-47864	-60260	-15735	-14590	-16707	-5900	-5441	..	
Non EU balance on trade in goods (£ million)	LGDT	-22036	-29523	-7983	-6295	-7953	-3105	-2293	..	
Non EU exports of goods (excl oil & erratics)	SHDJ	108.7	113.2	114.9	133.4	132.7	132.7	142.0	..	-0.5
Non EU imports of goods (excl oil & erratics)	SHED	105.1	116.5	117.8	121.3	120.9	122.4	122.9	..	-0.4
Non EU import & price index (excl oil)[7]	LKWQ	96.8	94.7	95.9	97.2	99.0	98.6	98.2	..	
Non EU export & price index (excl oil)[7]	LKVX	97.7	96.3	97.1	97.6	98.3	98.1	97.9	..	
Labour market and productivity (2002 = 100 unless otherwise stated)										
UK claimant unemployment (thousands)	BCJD	933.3	853.6	820.9	853.8	870.0	867.3	878.0	890.1	2.0
UK employees in manufacturing (thousands)	YEJA	3415	3282	3222	3184	3163	3166	3163	..	-0.9
Whole economy productivity[8]	LNNN	101.6	103.9	104.2	104.5	..	..	..	..	0.3
Manufacturing productivity[8]	LNNX	105.1	111.2	112.6	113.6	115.3	115.3	115.2	..	1.4
Unit wage costs - whole economy	LNNK	101.7	103.4	106.0	106.1	..	..	..	..	0.1
Unit wage costs - manufacturing	LNNQ	98.5	96.5	97.7	96.8	97.1	97.0	97.6	..	0.2
Financial markets[1]										
Sterling ERI (1990=100)	AGBG	100.2	104.1	102.9	104.3	102.9	102.8	103.9	103.1	-0.3
Average exchange rate /US $	AUSS	1.63	1.84	1.89	1.86	1.78	1.79	1.81	1.76	-1.1
Average exchange rate /Euro[9]	THAP	1.45	1.47	1.44	1.47	1.46	1.46	1.48	1.47	0.0
3 month inter-bank rate[10]	HSAJ	3.95	4.81	4.90	4.69	4.52	4.52	4.52	4.54	
3 month interest on US Treasury bills[11]	LUST	0.93	2.18	2.73	3.06	3.47	3.44	3.47	3.83	
Monetary conditions/government finances										
M0 (year on year percentage growth)	VQMX	7.3	6.0	5.5	4.3	5.4	6.1	5.4	5.2	
M4 (year on year percentage growth)	VQJW	7.2	8.6	10.6	10.6	11.4	10.0	11.3	11.6	
Public sector net borrowing (£ million)[1,12]	ANNX	-34741	-38833	-932	-15441	-7626	-5763	-5770	2183	
Net lending to consumers (£ million)(broader)	RLMH	20253	22992	5918	4409	3460	1301	1211	1273	-10.8

		2004 Oct	2004 Nov	2004 Dec	2005 Jan	2005 Feb	2005 Mar	2005 Apr	2005 May	2005 Jun	2005 Jul	2005 Aug	2005 Sep	2005 Oct	2005 Nov
Activity and expectations															
CBI output expectations balance[1]	ETCU	14	5	-6	10	19	9	5	-1	-5	6	3	6	2	-4
CBI optimism balance[1]	ETBV	-10	..	..	-22	..	..	-15	..	..	-16	..	..	-21	..
CBI price expectations balance	ETDQ	-2	12	9	15	10	11	3	-4	-5	-9	-8	-6	-4	-1
New engineering orders (2000 = 100)	JIQH	75.3	79.5	82.0	79.4	78.4	76.8	77.5	80.2	77.5	79.4	87.0	76.6	..	..

1 Not seasonally adjusted
2 MIPS: mortgage interest payments
3 FBTP: food, beverages, tobacco and petroleum
4 See footnote 2 on Table 3.1.
5 See footnote 2 on Table 4.6
6 All Non EU figures exclude Austria, Finland & Sweden
7 12 monthly percentage change

8 Output per filled job.
9 Prior to January 1999, a synthetic Euro has been calculated by geometrically averaging the bilateral exchange rate of the 11 Euro-area countries using "internal weights" based on each country's share of the extra Euro-area trade
10 Last Friday of the period
11 Last working day
12 Annual figures are for the financial years 2003/04 and 2004/05.

2.1 National accounts aggregates

	£ million		Indices (2002 = 100)						
	At current prices		Value indices at current prices		Chained volume indices			Implied deflators[2]	
	Gross domestic product at market prices	Gross value added (GVA) at basic prices	Gross domestic product at market prices[1]	Gross Value added (GVA) at basic prices	Gross national disposable income at market prices	Gross domestic product at market prices	Gross value added (GVA) at basic prices+	GDP at market prices	GVA at basic prices
	YBHA	ABML	YBEU	YBEX	YBFP	YBEZ	CGCE	YBGB	CGBV
Annual									
2000	953 576	841 505	91.0	90.4	93.5	95.9	96.4	94.8	93.8
2001	996 758	883 412	95.1	94.9	96.4	98.0	98.3	97.0	96.5
2002	1 048 456	930 796	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2003	1 105 919	981 732	105.5	105.5	102.6	102.5	102.5	102.9	102.9
2004	1 163 942	1 032 803	111.0	111.0	105.9	105.8	105.6	105.0	105.1
Quarterly									
2000 Q1	234 970	207 333	89.6	89.1	92.9	95.0	95.4	94.3	93.4
Q2	236 346	208 163	90.2	89.5	93.1	95.6	96.1	94.3	93.1
Q3	239 522	211 428	91.4	90.9	94.4	96.3	96.9	94.9	93.7
Q4	242 738	214 581	92.6	92.2	93.6	96.7	97.3	95.7	94.8
2001 Q1	245 674	217 424	93.7	93.4	95.6	97.5	97.9	96.2	95.4
Q2	248 157	219 709	94.7	94.4	96.0	97.8	98.2	96.8	96.1
Q3	249 239	221 127	95.1	95.0	96.9	98.2	98.4	96.9	96.5
Q4	253 688	225 152	96.8	96.8	97.2	98.7	98.8	98.1	97.9
2002 Q1	257 004	227 916	98.1	97.9	98.7	99.2	99.3	98.9	98.7
Q2	261 090	232 002	99.6	99.7	99.2	99.7	99.7	99.9	100.0
Q3	264 065	234 484	100.7	100.8	101.0	100.4	100.3	100.4	100.4
Q4	266 297	236 394	101.6	101.6	101.1	100.7	100.7	100.9	100.9
2003 Q1	270 583	240 537	103.2	103.4	102.3	101.4	101.4	101.8	102.0
Q2	274 053	243 452	104.6	104.6	101.6	101.9	101.8	102.6	102.7
Q3	278 966	247 512	106.4	106.4	102.8	102.9	102.9	103.4	103.4
Q4	282 317	250 231	107.7	107.5	103.9	103.9	103.9	103.7	103.5
2004 Q1	285 940	253 219	109.1	108.8	104.8	104.9	104.9	104.0	103.8
Q2	289 204	256 646	110.3	110.3	105.9	105.7	105.5	104.4	104.5
Q3	292 359	259 437	111.5	111.5	105.1	106.0	105.8	105.3	105.4
Q4	296 439	263 501	113.1	113.2	107.7	106.5	106.2	106.2	106.6
2005 Q1	298 163	264 857	113.8	113.8	106.6	106.8	106.5	106.6	106.9
Q2	301 336	267 483	115.0	114.9	108.0	107.3	107.0	107.2	107.4
Q3	304 194	269 358	116.1	115.8	..	107.7	107.4	107.7	107.7

Percentage change, quarter on corresponding quarter of previous year[3]

Quarterly									
2000 Q1	6.1	5.7	6.1	5.7	5.2	4.3	4.2	1.6	1.4
Q2	5.2	4.8	5.2	4.8	4.3	4.5	4.4	0.7	0.4
Q3	5.1	5.2	5.1	5.2	4.8	4.1	4.3	1.0	0.9
Q4	4.9	5.3	4.9	5.3	2.4	3.2	3.4	1.5	1.9
2001 Q1	4.6	4.9	4.6	4.9	2.9	2.6	2.6	2.0	2.1
Q2	5.0	5.5	5.0	5.5	3.1	2.3	2.2	2.7	3.2
Q3	4.1	4.6	4.1	4.6	2.6	2.0	1.5	2.1	3.0
Q4	4.5	4.9	4.5	4.9	3.8	2.1	1.6	2.5	3.3
2002 Q1	4.6	4.8	4.6	4.8	3.2	1.7	1.4	2.8	3.5
Q2	5.2	5.6	5.2	5.6	3.3	1.9	1.5	3.2	4.1
Q3	5.9	6.0	5.9	6.0	4.2	2.2	1.9	3.6	4.0
Q4	5.0	5.0	5.0	5.0	4.0	2.0	1.9	2.9	3.1
2003 Q1	5.3	5.5	5.3	5.5	3.6	2.2	2.1	2.9	3.3
Q2	5.0	4.9	5.0	4.9	2.4	2.2	2.2	2.7	2.7
Q3	5.6	5.6	5.6	5.6	1.8	2.5	2.5	3.0	3.0
Q4	6.0	5.9	6.0	5.9	2.8	3.2	3.1	2.8	2.6
2004 Q1	5.7	5.3	5.7	5.3	2.4	3.5	3.4	2.2	1.8
Q2	5.5	5.4	5.5	5.4	4.2	3.7	3.6	1.8	1.8
Q3	4.8	4.8	4.8	4.8	2.2	3.0	2.9	1.8	1.9
Q4	5.0	5.3	5.0	5.3	3.7	2.5	2.3	2.4	3.0
2005 Q1	4.3	4.6	4.3	4.6	1.7	1.8	1.6	2.5	3.0
Q2	4.2	4.2	4.2	4.2	2.0	1.5	1.4	2.7	2.8
Q3	4.0	3.8	4.0	3.8	..	1.6	1.6	2.3	2.2

1 "Money GDP."
2 Based on chained volume measures and current price estimates of expenditure components of GDP.

3 These estimates of change are based in some cases on less rounded figures than in the table.

Source: Office for National Statistics; Enquiries 020 7533 6031

National accounts aggregates

Indices, 2002=100 seasonally adjusted

Gross national disposable income, chained volume index at market prices

GDP at current market prices

GVA, chained volume index at basic prices

National accounts aggregates

Percentage change on year earlier

GDP at current market prices

GVA chained volume index at basic prices

Gross national disposable income, chained volume index at market prices

2.2 Gross domestic product : by category of expenditure
Chained volume measures

Reference year 2002, £ million

| | Domestic expenditure on goods and services at market prices | | | | | | | | | | | |
| | Final consumption expenditure | | | Gross capital formation | | | | | | _less_ | Statis-tical | Gross |
	House-holds	Non-profit instit-utions [2]	General government	Gross fixed capital formation+	Changes in inven-tories[3]	Acquisi-tions less disposals of valuables	Total	Exports of goods and services+	Gross final expend-iture	Imports of goods and services+	discre-pancy (expen-diture)	domestic product at market prices
Annual												
	ABJR	HAYO	NMRY	NPQT	CAFU	NPJR	YBIM	IKBK	ABMG	IKBL	GIXS	ABMI
2000	625 145	25 270	198 616	163 709	5 267	3	1 017 985	266 536	1 284 619	279 807	–	1 005 542
2001	644 895	25 247	201 996	167 563	6 196	373	1 046 424	274 274	1 320 810	293 213	–	1 027 905
2002	667 361	25 998	210 967	172 558	2 909	214	1 080 007	274 945	1 354 952	306 496	–	1 048 456
2003	684 841	26 229	220 449	172 573	4 602	−6	1 108 689	278 159	1 386 848	311 990	–	1 074 858
2004	710 243	26 781	226 159	181 043	5 148	−11	1 149 364	289 007	1 438 371	330 436	955	1 108 890
Quarterly												
2000 Q1	155 841	6 151	49 110	40 052	481	2	251 678	64 146	315 800	67 027	–	249 056
Q2	155 859	6 272	49 985	40 010	1 171	−1	253 197	66 418	319 644	69 313	–	250 537
Q3	156 783	6 392	49 956	41 109	1 789	−3	256 003	66 960	322 977	70 725	–	252 424
Q4	156 662	6 455	49 565	42 538	1 826	5	257 107	69 012	326 198	72 742	–	253 525
2001 Q1	159 089	6 402	50 036	42 007	1 040	−18	258 590	70 148	328 833	73 449	–	255 459
Q2	160 258	6 323	49 827	42 160	1 375	210	260 275	69 408	329 749	73 368	–	256 450
Q3	162 141	6 280	50 701	42 249	1 662	38	263 114	67 325	330 410	73 187	–	257 301
Q4	163 407	6 242	51 432	41 147	2 119	143	264 445	67 393	331 818	73 209	–	258 695
2002 Q1	165 301	6 321	52 654	41 651	1 177	74	267 140	67 640	334 760	74 838	–	259 971
Q2	166 424	6 425	52 249	42 936	394	56	268 495	70 380	338 897	77 479	–	261 381
Q3	167 273	6 587	52 864	43 562	480	70	270 855	69 894	340 768	77 678	–	263 060
Q4	168 363	6 665	53 200	44 409	858	14	273 517	67 031	340 527	76 501	–	264 044
2003 Q1	169 079	6 558	53 929	43 232	103	–	272 901	71 403	344 304	78 620	–	265 684
Q2	171 108	6 554	54 618	42 843	−387	102	274 837	68 719	343 556	76 406	–	267 150
Q3	171 946	6 564	55 464	42 459	2 339	−60	278 712	68 495	347 207	77 429	–	269 778
Q4	172 708	6 553	56 438	44 039	2 547	−48	282 239	69 542	351 781	79 535	–	272 246
2004 Q1	174 946	6 668	56 469	44 374	1 151	117	283 724	71 097	354 821	79 953	186	275 054
Q2	177 551	6 669	56 444	45 286	1 177	−81	287 046	71 903	358 948	82 186	231	276 993
Q3	178 311	6 703	56 551	45 520	1 294	−86	288 293	72 592	360 885	83 393	262	277 754
Q4	179 435	6 741	56 695	45 863	1 526	39	290 301	73 415	363 717	84 904	276	279 089
2005 Q1	179 633	6 810	56 998	45 843	1 772	−142	290 914	72 910	363 824	84 250	241	279 815
Q2	180 272	6 843	57 283	46 287	−54	95	290 726	76 082	366 808	85 855	242	281 195
Q3	181 107	6 906	57 455	46 773	1 058	−182	293 117	76 641	369 758	87 660	243	282 340†

Percentage change, latest quarter on corresponding quarter of previous year

	House-holds	Non-profit instit-utions	General government	Gross fixed capital formation			Total	Exports of goods and services	Gross final expend-iture	Imports of goods and services		Gross domestic product at market prices
2000 Q1	5.8	6.1	3.5	1.7			3.8	10.2	5.1	8.0		4.3
Q2	4.8	8.9	3.9	3.6			4.6	10.7	5.8	10.8		4.4
Q3	4.5	10.1	3.9	3.1			4.6	7.0	5.1	8.6		4.2
Q4	2.6	9.4	3.3	5.7			3.3	8.8	4.5	8.8		3.2
2001 Q1	2.1	4.1	1.9	4.9			2.7	9.4	4.1	9.6		2.6
Q2	2.8	0.8	−0.3	5.4			2.8	4.5	3.2	5.9		2.4
Q3	3.4	−1.8	1.5	2.8			2.8	0.5	2.3	3.5		1.9
Q4	4.3	−3.3	3.8	−3.3			2.9	−2.3	1.7	0.6		2.0
2002 Q1	3.9	−1.3	5.2	−0.8			3.3	−3.6	1.8	1.9		1.8
Q2	3.8	1.6	4.9	1.8			3.2	1.4	2.8	5.6		1.9
Q3	3.2	4.9	4.3	3.1			2.9	3.8	3.1	6.1		2.2
Q4	3.0	6.8	3.4	7.9			3.4	−0.5	2.6	4.5		2.1
2003 Q1	2.3	3.7	2.4	3.8			2.2	5.6	2.9	5.1		2.2
Q2	2.8	2.0	4.5	−0.2			2.4	−2.4	1.4	−1.4		2.2
Q3	2.8	−0.3	4.9	−2.5			2.9	−2.0	1.9	−0.3		2.6
Q4	2.6	−1.7	6.1	−0.8			3.2	3.7	3.3	4.0		3.1
2004 Q1	3.5	1.7	4.7	2.6			4.0	−0.4	3.1	1.7		3.5
Q2	3.8	1.8	3.3	5.7			4.4	4.6	4.5	7.6		3.7
Q3	3.7	2.1	2.0	7.2			3.4	6.0	3.9	7.7		3.0
Q4	3.9	2.9	0.5	4.1			2.9	5.6	3.4	6.8		2.5
2005 Q1	2.7	2.1	0.9	3.3			2.5	2.6	2.5	5.4		1.7
Q2	1.5	2.6	1.5	2.2			1.3	5.8	2.2	4.5		1.5
Q3	1.6	3.0	1.6	2.8			1.7	5.6	2.5	5.1		1.7

1 Estimates given to nearest million but cannot be regarded as accurate to the degree.

2 Non-profit making institutions serving households(NPISH).

3 Quarterly alignment adjustment included in this series.

Source: Office for National Statistics; Enquiries 020 7533 6031

Gross Domestic Product : by category of expenditure

chained volume measures
reference year 2002
percentage change on year earlier

Gross domestic product at market prices

Households & NPISH
final consumtion
expenditure

General government
final consumption
expenditure

Gross fixed
capital
formation

Imports of goods
and services

Exports of goods
and services
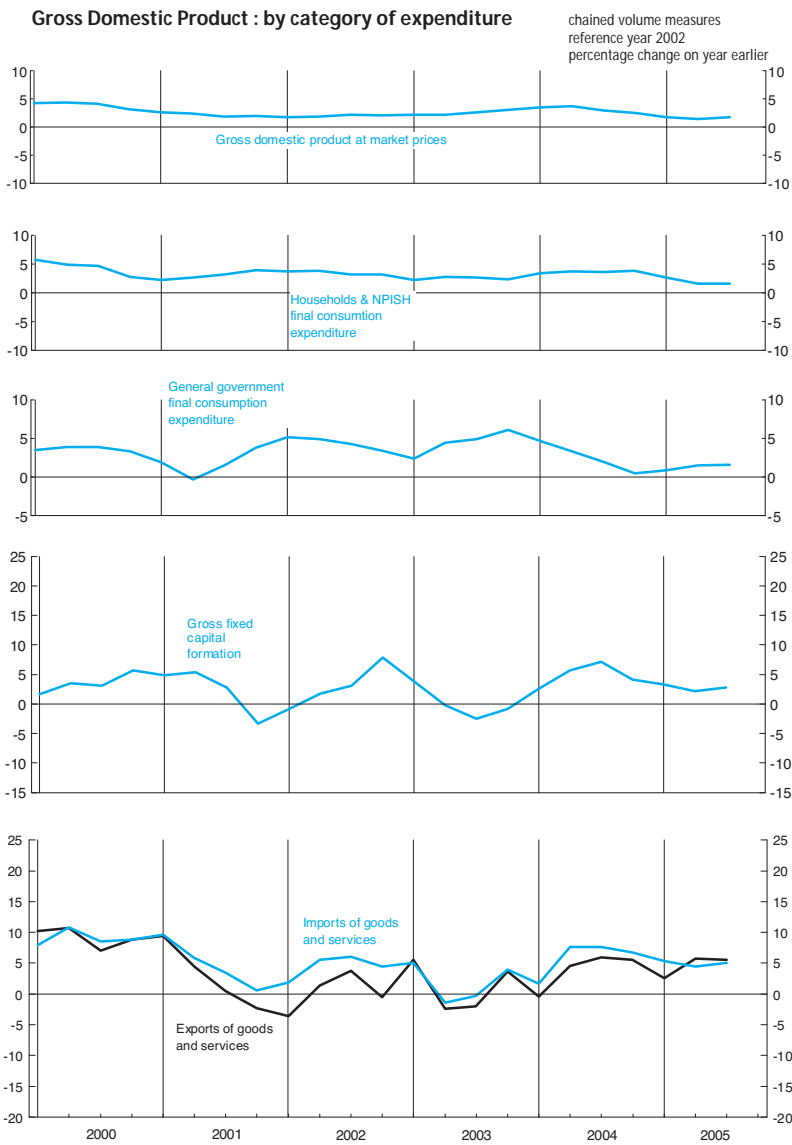
2.3 Gross domestic product and shares of income and expenditure

	Gross domestic product at market prices (£ million)	Gross final expenditure (£ million)	Percentage share of gross final expenditure				Percentage share of GDP by category of income				
			Final consumption expenditure		Gross capital formation	Exports of goods and services	Gross operating surplus		Compensation of employees	Mixed income	Taxes on production and imports
			Household and NPISH	General govern-ment			Corporat-ions[1]	Other[2]			
	YBHA	ABMF	IHXI	IHXJ	IHXK	IHXL	IHXM	IHXO	IHXP	IHXQ	IHXR
Annual											
2002	1 048 456	1 354 952	51.2	15.6	13.0	20.3	21.7	3.0	56.1	6.3	12.9
2003	1 105 919	1 419 132	51.1	16.3	12.7	19.9	22.2	2.9	55.8	6.3	12.8
2004	1 163 942	1 493 073	51.0	16.5	13.1	19.5	22.5	2.8	55.7	6.3	12.8
Quarterly											
2002 Q1	257 004	332 338	51.4	15.4	12.8	20.4	21.8	2.8	56.0	6.3	13.0
Q2	261 090	339 079	50.9	15.4	12.8	20.9	21.2	3.7	56.1	6.3	12.8
Q3	264 065	341 177	51.0	15.6	13.0	20.4	21.9	2.8	56.1	6.3	12.8
Q4	266 297	342 358	51.4	15.8	13.3	19.4	21.8	2.7	56.3	6.3	12.8
2003 Q1	270 583	349 262	51.0	16.0	12.3	20.7	22.6	2.4	56.0	6.3	12.7
Q2	274 053	350 763	51.4	16.3	12.3	19.9	21.9	3.2	55.8	6.3	12.7
Q3	278 966	356 950	51.1	16.4	12.9	19.6	22.3	2.7	55.9	6.3	12.8
Q4	282 317	362 157	50.8	16.6	13.2	19.4	21.9	3.3	55.7	6.3	12.9
2004 Q1	285 940	364 578	51.3	16.5	12.8	19.4	22.0	2.9	55.9	6.3	12.9
Q2	289 204	370 638	51.2	16.3	13.1	19.4	22.9	2.5	55.6	6.3	12.8
Q3	292 359	375 781	50.9	16.5	13.2	19.5	22.4	3.0	55.6	6.3	12.8
Q4	296 439	382 076	50.6	16.6	13.1	19.7	22.8	2.6	55.8	6.2	12.6
2005 Q1	298 163	383 782	50.8	16.7	13.1	19.5	22.2	2.7	56.4	6.3	12.5
Q2	301 336	388 700	50.6	16.6	12.8	20.0	22.4	2.7	56.2	6.3	12.5
Q3	304 194	394 608	..	..	..	..	..	..	..	..	..

1 Non-financial and financial corporations.
2 Gross operating surplus of General government, and Households and NPISH plus the adjustment for financial services.

Source: Office for National Statistics; Enquiries 020 7533 6031

2.4 Income, product and spending per head

£

	At current prices				Chained volume measures (reference year 2002)		
	Gross national income at market prices	Gross domestic product at market prices	Household and NPISH final consumption expenditure	Households' gross disposable income	Gross domestic product at market prices	Household and NPISH final consumption expenditure	Real households' disposable income
	IHXS	IHXT	IHXU	IHXV	IHXW	IHXX	IHXZ
Annual							
2002	18 041	17 674	11 687	11 971	17 675	11 688	11 971
2003	18 945	18 570	12 174	12 500	18 049	11 940	12 258
2004	19 965	19 537	12 778	12 928	18 613	12 371	12 517
Quarterly							
2002 Q1	4 409	4 338	2 886	2 945	4 389	2 897	2 956
Q2	4 468	4 404	2 911	2 994	4 409	2 915	2 999
Q3	4 564	4 450	2 929	3 006	4 433	2 930	3 006
Q4	4 600	4 482	2 961	3 026	4 444	2 946	3 010
2003 Q1	4 680	4 549	2 992	3 061	4 466	2 953	3 021
Q2	4 678	4 603	3 030	3 135	4 487	2 984	3 087
Q3	4 755	4 682	3 064	3 130	4 528	2 996	3 060
Q4	4 832	4 736	3 088	3 174	4 568	3 007	3 090
2004 Q1	4 894	4 797	3 136	3 182	4 615	3 047	3 092
Q2	4 962	4 853	3 183	3 220	4 648	3 091	3 127
Q3	4 976	4 908	3 210	3 258	4 663	3 106	3 152
Q4	5 133	4 979	3 249	3 268	4 687	3 127	3 146
2005 Q1	5 119	5 003	3 269	3 296	4 695	3 129	3 155
Q2	5 208	5 056	3 297	3 349	4 718	3 140	3 189

Source: Office for National Statistics; Enquiries 020 7533 6031

Shares of income and expenditure

Gross final expenditure

Share at current market prices, 2004

General government consumption   16.5

Gross capital formation   13.1

51.0
Household and NPISH consumption

Exports of goods and services   19.5

Gross domestic product

Share at current basic prices, 2004

Compensation of employees   55.7

Mixed income   6.3

Taxes on production and imports   12.8

2.8 Other   Gross operating surplus

22.5 Corporations

Income, product and spending per capita
chained volume measures, reference year 2002   percentage change on year earlier

Real households' disposable income

Household and NPISH final consumption expenditure

Gross domestic product

2000   2001   2002   2003   2004   2005
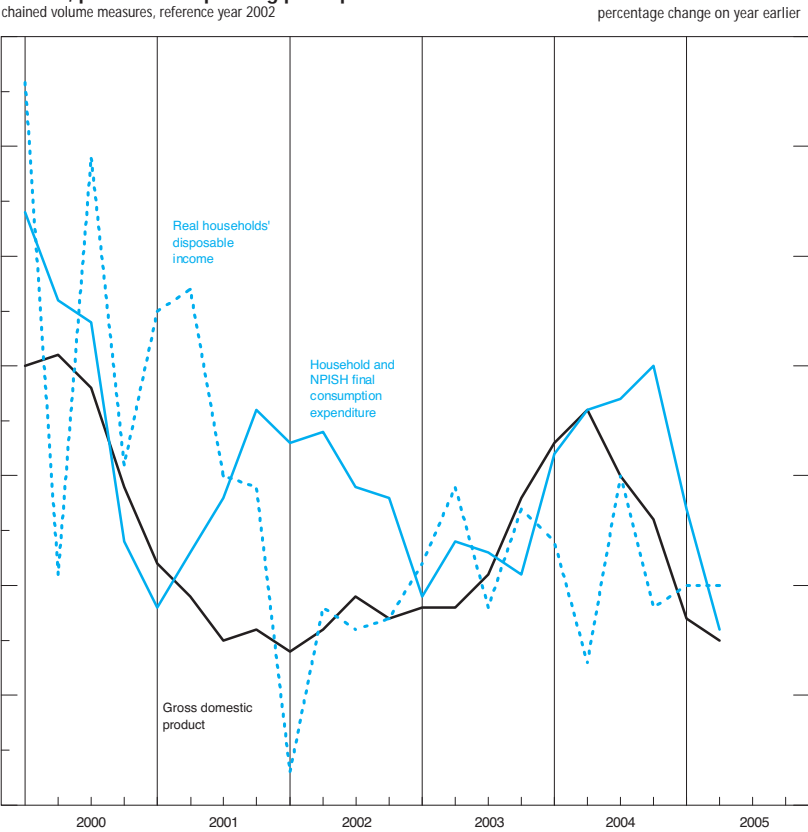
2.5 Households[1] disposable income and consumption

| | £ million, current prices | | | | | | | £ million, chained volume measures, reference year 2002 | | |
| | Households' income before tax | | Gross households' disposable income[2] | Adjustment for the change in net equity of households in pension funds | Households' Total resources | Households' final consumption expenditure | Households' saving ratio[3] (percentage)+ | Real households' disposable income+[4] | Household final consumption expenditure+ | Real households' disposable income (index 2002=100) |
	Total	of which: Wages and salaries								
	RPHP	ROYJ	RPHQ	RPQJ	RPQK	RPQM	NRJS	NRJR	NPSP	OSXS
Annual										
2002	1 015 614	509 546	710 144	17 906	728 050	693 359	4.8	710 144	693 359	100.0
2003	1 067 190	526 949	744 395	21 586	765 981	725 012	5.3	730 080	711 070	102.8
2004	1 116 000	550 878	770 231	25 692	795 923	761 223	4.4	745 746	737 024	105.0
Quarterly										
2002 Q1	249 009	125 136	174 431	4 005	178 436	170 968	4.2	175 100	171 624	98.6
Q2	253 005	126 891	177 530	4 289	181 819	172 601	5.1	177 785	172 849	100.1
Q3	255 632	128 052	178 374	4 740	183 114	173 836	5.1	178 397	173 859	100.5
Q4	257 968	129 467	179 809	4 872	184 681	175 954	4.7	178 862	175 027	100.7
2003 Q1	260 307	130 003	182 099	5 196	187 295	177 952	5.0	179 729	175 637	101.2
Q2	266 376	131 002	186 656	4 046	190 702	180 420	5.4	183 802	177 662	103.5
Q3	268 894	132 597	186 481	6 211	192 692	182 562	5.3	182 341	178 510	102.7
Q4	271 613	133 347	189 159	6 133	195 292	184 078	5.7	184 208	179 261	103.8
2004 Q1	274 256	135 417	189 675	6 688	196 363	186 903	4.8	184 306	181 614	103.8
Q2	276 861	136 716	191 880	5 821	197 701	189 683	4.1	186 352	184 220	105.0
Q3	281 373	138 257	194 075	6 129	200 204	191 212	4.5	187 782	185 014	105.8
Q4	283 510	140 488	194 601	7 054	201 655	193 425	4.1	187 306	186 176	105.5
2005 Q1	288 018	142 596	196 427	7 477	203 904	194 787	4.5	188 013	186 443	105.9
Q2	293 339	143 480	199 574	7 263	206 837	196 510	5.0	190 033	187 115	107.0
Q3	..	..	..	..	..	198 577	..	..	188 013	..

1 All households series include also Non-Profit Institutions Serving Households (NPISH).
2 Total household income *less* payments of income tax and other taxes, social contributions and other current transfers.
3 Households saving as a percentage of Total resources; this is the sum of Gross household disposable income and the Adjustment for the change in net equity of households in pension funds (D.8).
4 Gross household disposable income revalued by the implied Household and NPISH final consumption expenditure deflator (2002 = 100).

Sources: Office for National Statistics; Enquiries Column 1 020 7533 6005; Columns 2-5,7,8,10 020 7533 6027; Columns 6,9 020 7533 5999

2.6 Household final consumption expenditure[1,2]
Chained volume measures

Reference year 2002, £ million

| | UK National[4] | | UK Domestic[5] | | | | | | | | | | | | |
| | Total | Net tourism | Total | Food & drink | Alcohol & tobacco | Clothing & footwear | Housing | Household goods & services | Health | Transport | Communication | Recreation & culture | Education | Restaurants & hotels | Miscellaneous |
COICOP[3]	-	-	0	01	02	03	04	05	06	07	08	09	10	11	12
	ABJR	ABTH	ZAKW	ZWUN	ZAKY	ZALA	ZAVO	ZAVW	ZAWC	ZAWM	ZAWW	ZAXA	ZWUT	ZAXS	ZAYG
Annual															
2002	667 361	10 563	656 798	61 493	25 966	39 092	121 238	40 448	10 778	99 797	14 675	81 363	9 381	76 298	76 269
2003	684 841	10 638	674 203	61 883	26 364	41 993	122 325	42 745	11 292	102 055	15 464	87 734	8 870	76 422	77 056
2004	710 243	11 143	699 100	63 238	26 604	45 847	125 238	45 186	11 788	103 965	16 356	95 625	8 831	78 255	78 167
Quarters															
2002 Q1	165 301	2 759	162 544	14 965	6 432	9 705	30 106	10 010	2 637	24 670	3 607	20 274	2 419	18 913	18 791
Q2	166 424	2 544	163 881	15 168	6 494	9 724	30 278	9 994	2 684	24 996	3 668	20 202	2 374	19 109	19 194
Q3	167 273	2 628	164 644	15 480	6 505	9 838	30 335	10 160	2 718	25 176	3 688	20 226	2 349	19 161	19 015
Q4	168 363	2 632	165 729	15 880	6 535	9 825	30 519	10 284	2 739	24 955	3 712	20 661	2 239	19 115	19 269
2003 Q1	169 079	2 821	166 258	15 339	6 538	10 066	30 405	10 514	2 767	25 372	3 746	21 055	2 222	18 881	19 353
Q2	171 108	2 745	168 363	15 881	6 556	10 412	30 476	10 803	2 796	25 633	3 846	21 592	2 211	18 927	19 230
Q3	171 946	2 639	169 307	15 412	6 627	10 741	30 567	10 604	2 834	25 558	3 924	22 323	2 216	19 333	19 168
Q4	172 708	2 433	170 275	15 251	6 643	10 774	30 877	10 824	2 895	25 492	3 948	22 764	2 221	19 281	19 305
2004 Q1	174 946	2 776	172 170	15 909	6 662	11 019	31 136	10 906	2 886	25 654	4 000	22 991	2 218	19 540	19 249
Q2	177 551	2 822	174 729	15 618	6 671	11 423	31 314	11 312	2 958	25 804	3 987	24 125	2 211	19 677	19 629
Q3	178 311	2 874	175 437	15 725	6 616	11 591	31 311	11 570	2 964	26 073	4 155	24 165	2 206	19 494	19 567
Q4	179 435	2 671	176 764	15 986	6 655	11 814	31 477	11 398	2 980	26 434	4 214	24 344	2 196	19 544	19 722
2005 Q1	179 633	2 904	176 729	15 994	6 663	11 845	31 410	11 439	2 962	26 316	4 341	24 606	2 188	19 996	18 969
Q2	180 272	2 581	177 691	16 093	6 670	11 925	31 798	11 373	2 951	26 696	4 353	24 625	2 169	19 997	19 041
Q3	181 107	..	..	..	..	..	..	..	..	..	..	..	..	..	..

1 Estimates are given to the nearest £ million but cannot be regarded as accurate to this degree.
2 More detailed estimates of Household Final Consumption Expenditure, expressed in both current prices and chained volume measures and both unadjusted and seasonally adjusted appear in the ONS publication *Consumer Trends*.
3 ESA 95 Classification of Individual Consumption by Purpose
4 Final consumption expenditure by UK households in the UK & abroad
5 Final consumption expenditure in the UK by UK & foreign households

Household's Disposable Income and Consumption

Proportion of **Households' Income before tax**
(Current Prices), per cent

Gross Household's
disposable income

Household final
consumption
expenditure

Household final consumption expenditure – component categories

chained volume measures
reference year 2002, £ thousand million

Housing
(LHS)

Food & drink
(RHS)

Transport
(LHS)

2.7 Gross fixed capital formation
Chained volume measures

Reference year 2002, £ million

| | Analysis by sector | | | | | Analysis by asset | | | | |
| | | | Public corporations[2] | Private sector | | | | | | | |
	Business investment[1]	General government	Transfer costs of non-produced assets	Dwellings	Transfer costs of non-produced assets	Total+	Transport equipment	Other machinery and equipment	Dwellings	Other building and structures[3]	Intangible fixed assets
Annual											
	NPEL	DLWF	DLWH	DFEA	DLWI	NPQT	DLWL	DLWO	DFEG	DLWT	EQDO
2000	108 189	12 008	8	28 931	14 468	163 709	13 487	56 825	30 797	57 210	5 091
2001	109 792	13 954	67	29 195	14 343	167 563	14 786	57 545	32 006	57 928	5 047
2002	110 166	15 580	−41	31 455	15 398	172 558	16 214	56 421	34 499	59 836	5 588
2003	107 747	18 244	−234	32 474	14 342	172 573	14 669	54 104	36 056	61 934	5 810
2004	111 379	20 239	−266	35 547	14 144	181 043	14 248	57 091	38 879	64 629	6 196
Quarterly											
2000 Q1	25 974	2 785	−1	7 486	4 091	40 052	3 324	13 307	7 926	14 416	1 234
Q2	26 195	2 950	1	7 415	3 462	40 010	3 297	13 722	7 868	13 827	1 286
Q3	27 345	2 886	−	7 260	3 527	41 109	3 284	14 517	7 715	14 164	1 277
Q4	28 675	3 387	8	6 770	3 388	42 538	3 582	15 279	7 288	14 803	1 294
2001 Q1	27 875	2 985	35	7 312	3 734	42 007	3 303	14 720	7 911	14 686	1 261
Q2	27 726	3 618	28	7 155	3 539	42 160	3 881	14 262	7 891	14 830	1 251
Q3	27 586	3 648	3	7 522	3 427	42 249	3 884	14 460	8 252	14 343	1 265
Q4	26 605	3 703	1	7 206	3 643	41 147	3 718	14 103	7 952	14 069	1 270
2002 Q1	27 145	3 726	4	7 295	3 440	41 651	4 045	13 697	8 006	14 602	1 306
Q2	27 421	3 832	10	7 759	3 924	42 936	4 009	14 394	8 396	14 704	1 404
Q3	27 325	4 029	−25	8 104	4 177	43 562	4 137	14 279	8 829	14 896	1 411
Q4	28 275	3 993	−30	8 297	3 857	44 409	4 023	14 051	9 268	15 634	1 467
2003 Q1	26 670	4 747	−13	7 831	3 997	43 232	3 871	13 766	8 824	15 347	1 424
Q2	27 231	4 079	−49	8 031	3 551	42 843	3 454	13 043	8 835	16 074	1 437
Q3	26 424	4 487	−98	8 237	3 409	42 459	3 633	13 317	9 165	14 885	1 459
Q4	27 422	4 931	−74	8 375	3 385	44 039	3 711	13 978	9 232	15 628	1 490
2004 Q1	27 483	4 693	−58	8 753	3 503	44 374	3 507	14 297	9 487	15 575	1 508
Q2	27 527	5 351	−75	8 890	3 593	45 286	3 688	14 158	9 747	16 156	1 537
Q3	28 211	4 979	−83	8 898	3 515	45 520	3 609	14 197	9 790	16 362	1 562
Q4	28 158	5 216	−50	9 006	3 533	45 863	3 444	14 439	9 855	16 536	1 589
2005 Q1	28 268	5 786	−90	8 910	2 969	45 843	3 512	14 468	9 730	16 534	1 599
Q2	28 684	5 188	−85	8 905	3 595	46 287	3 474	14 669	9 714	16 815	1 615
Q3	28 761	..	..	..	..	46 773	..	..	..	..	..

Percentage change, latest quarter on corresponding quarter of previous year

2000 Q1	1.2	−4.6		−0.2	27.6	1.7	−14.9	4.1	−0.2	5.2	4.5
Q2	3.4	6.0		4.2	0.2	3.6	−7.5	8.6	1.3	1.6	6.1
Q3	3.7	2.7		6.1	−10.3	3.1	−12.0	10.0	6.8	−2.4	4.2
Q4	9.5	21.7		−8.1	−20.1	5.7	−5.4	18.0	−7.2	1.1	2.7
2001 Q1	7.3	7.2		−2.3	−8.7	4.9	−0.6	10.6	−0.2	1.9	2.2
Q2	5.8	22.6		−3.5	2.2	5.4	17.7	3.9	0.3	7.3	−2.7
Q3	0.9	26.4		3.6	−2.8	2.8	18.3	−0.4	7.0	1.3	−0.9
Q4	−7.2	9.3		6.4	7.5	−3.3	3.8	−7.7	9.1	−5.0	−1.9
2002 Q1	−2.6	24.8		−0.2	−7.9	−0.8	22.5	−6.9	1.2	−0.6	3.6
Q2	−1.1	5.9		8.4	10.9	1.8	3.3	0.9	6.4	−0.8	12.2
Q3	−0.9	10.4		7.7	21.9	3.1	6.5	−1.3	7.0	3.9	11.5
Q4	6.3	7.8		15.1	5.9	7.9	8.2	−0.4	16.5	11.1	15.5
2003 Q1	−1.7	27.4		7.3	16.2	3.8	−4.3	0.5	10.2	5.1	9.0
Q2	−0.7	6.4		3.5	−9.5	−0.2	−13.8	−9.4	5.2	9.3	2.4
Q3	−3.3	11.4		1.6	−18.4	−2.5	−12.2	−6.7	3.8	−0.1	3.4
Q4	−3.0	23.5		0.9	−12.2	−0.8	−7.8	−0.5	−0.4	0.0	1.6
2004 Q1	3.0	−1.1		11.8	−12.4	2.6	−9.4	3.9	7.5	1.5	5.9
Q2	1.1	31.2		10.7	1.2	5.7	6.8	8.5	10.3	0.5	7.0
Q3	6.8	11.0		8.0	3.1	7.2	−0.7	6.6	6.8	9.9	7.1
Q4	2.7	5.8		7.5	4.4	4.1	−7.2	3.3	6.7	5.8	6.6
2005 Q1	2.9	23.3		1.8	−15.2	3.3	0.1	1.2	2.6	6.2	6.0
Q2	4.2	−3.0		0.2	0.1	2.2	−5.8	3.6	−0.3	4.1	5.1
Q3	1.9	..		..	..	2.8	..	..	..	..	..

1 Not including dwellings and costs associated with the transfer of ownership of non-produced assets.

2 Remaining investment by public non-financial corporations is included within business investment.

3 Including costs associated with transfer of ownership of non-produced assets.

Source: Office for National Statistics; Enquiries 020 7533 6010

Gross fixed capital formation-by sector

Chained volume measures,
reference year 2002, £ million

Gross fixed capital formation – by asset

Chained volume measures,
reference year 2002, £ million
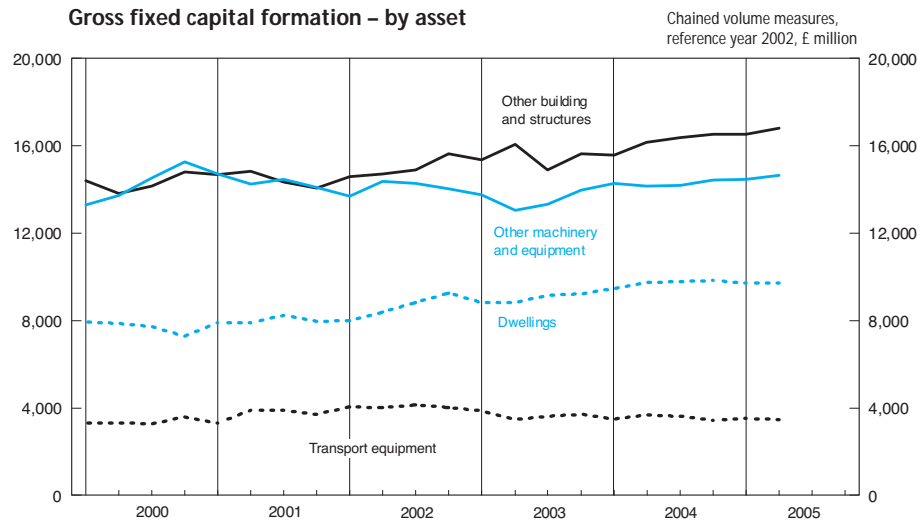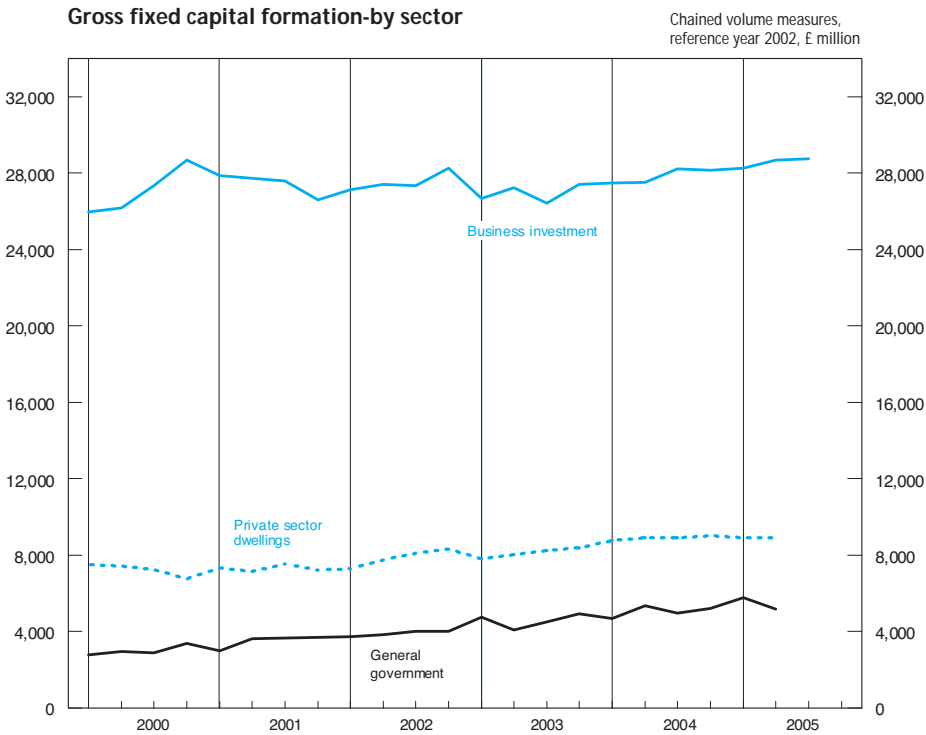
2.8 Gross value added, chained volume indices at basic prices, by category of output[1,3]

2002 = 100

	Production						Service industries					Gross value added at basic prices	Gross value added excluding oil
	Agric- ulture, forestry, and fishing	Mining and quarrying including oil and gas extraction	Manu- facturing	Elec- tricity gas and water supply	Total	Const- ruction	Distri- bution hotels and catering; repairs	Transport storage and comm- unication	Business services and finance	Govern- ment and other services	Total		
2002 Weights[1]	*10*	*24*	*159*	*18*	*201*	*59*	*157*	*80*	*264*	*229*	*730*	*1000*	*979*
	GDQA	CKYX	CKYY	CKYZ	CKYW	GDQB	GDQE	GDQH	GDQN	GDQU	GDQS	CGCE	JUNT
2000	98.0	106.1	104.6	98.2	104.2	94.6	93.5	94.1	93.9	95.5	94.3	96.4	96.2
2001	89.1	100.3	103.2	100.5	102.6	96.3	95.6	97.8	98.4	97.5	97.4	98.3	98.3
2002	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2003	98.3	94.9	100.1	101.2	99.5	105.2	103.5	102.6	102.8	102.1	102.7	102.5	102.7
2004	99.4	87.2	102.0	103.3	100.3	108.7	108.6	105.5	107.2	104.6	106.5	105.6	106.1†
Quarterly													
2000 Q1	98.6	110.2	103.8	96.9	103.8	96.9	92.5	91.2	92.0	94.6	92.9	95.4	95.0†
Q2	98.0	108.7	104.4	99.2	104.4	94.6	93.1	93.3	93.1	95.3	93.8	96.1	95.8
Q3	99.3	105.0	104.6	98.1	104.1	93.0	94.3	95.4	94.8	96.0	95.1	96.9	96.7
Q4	95.9	100.8	105.5	98.5	104.5	94.0	94.0	96.4	95.7	96.0	95.5	97.3	97.1
2001 Q1	89.8	99.3	105.5	102.1	104.5	95.5	94.7	97.7	96.6	96.5	96.3	97.9	97.8
Q2	88.2	101.9	103.2	101.1	102.9	95.8	95.1	98.0	98.4	97.1	97.2	98.2	98.1
Q3	88.0	100.8	103.0	99.9	102.4	96.4	95.7	97.4	98.7	97.7	97.6	98.4	98.4
Q4	90.2	99.2	100.9	98.8	100.4	97.6	97.0	98.0	99.8	98.6	98.6	98.8	98.8
2002 Q1	98.4	100.1	100.2	98.2	100.0	99.2	98.6	99.6	99.1	99.2	99.1	99.3	99.3
Q2	100.6	104.3	99.7	99.4	100.3	98.8	99.3	99.0	99.7	99.8	99.6	99.7	99.6
Q3	101.0	95.6	100.7	101.2	100.1	100.4	100.4	100.1	100.6	100.2	100.4	100.3	100.4
Q4	100.1	100.0	99.3	101.3	99.6	101.7	101.7	101.2	100.6	100.7	101.0	100.7	100.7
2003 Q1	97.9	99.6	99.4	99.3	99.4	102.0	101.7	101.5	101.8	101.0	101.5	101.4	101.4
Q2	97.8	95.2	99.5	100.2	99.1	104.0	103.0	102.3	101.6	102.0	102.0	101.8	102.0
Q3	98.7	93.5	100.2	101.6	99.5	107.1	104.1	103.1	102.9	102.5	103.1	102.9	103.1
Q4	98.8	91.1	101.1	103.5	100.1	107.7	105.3	103.4	104.8	103.4	104.3	103.9	104.2
2004 Q1	99.4	89.6	101.6	104.1	100.3	108.0	107.4	103.9	106.4	103.9	105.5	104.9	105.2
Q2	98.7	90.1	102.4	102.9	101.0	108.2	108.7	105.3	106.5	104.7	106.3	105.5	105.9
Q3	99.5	85.9	101.7	103.6	99.9	109.0	109.2	105.7	107.6	104.7	106.8	105.8	106.3
Q4	99.9	83.3	102.3	102.8	100.1	109.7	109.3	106.9	108.3	105.0	107.4	106.2	106.8
2005 Q1	99.1	82.7	101.5	101.5	99.2	109.9	109.0	107.6	109.3	105.8	108.0	106.5	107.1
Q2	100.1	83.0†	101.3	102.5	99.2	110.6	109.4†	107.7†	110.2	106.5†	108.6†	107.0	107.6
Q3	99.6	76.6†	101.6	101.7†	98.6	111.2	109.5†	108.7†	110.9	107.4†	109.3†	107.4	108.2
Percentage change, latest quarter on corresponding quarter of last year													
2000 Q1	*−0.6*	*1.6*	*2.8*	*1.9*	*2.6*	*4.9*	*2.8*	*8.8*	*3.3*	*4.5*	*4.3*	*4.3*	*4.2†*
Q2	*−0.1*	*−0.9*	*3.0*	*4.1*	*2.8*	*2.0*	*2.9*	*9.6*	*4.4*	*4.2*	*4.6*	*4.3*	*4.5*
Q3	*1.4*	*−5.3*	*1.9*	*1.6*	*1.1*	*−1.2*	*3.4*	*11.1*	*6.0*	*3.7*	*5.2*	*4.3*	*4.5*
Q4	*−3.2*	*−7.9*	*2.2*	*1.2*	*1.2*	*−0.5*	*2.3*	*9.0*	*4.8*	*2.6*	*4.0*	*3.4*	*3.6*
2001 Q1	*−8.9*	*−9.9*	*1.6*	*5.4*	*0.7*	*−1.4*	*2.4*	*7.1*	*5.0*	*2.0*	*3.7*	*2.6*	*2.9*
Q2	*−10.0*	*−6.3*	*−1.1*	*1.9*	*−1.4*	*1.3*	*2.1*	*5.0*	*5.7*	*1.9*	*3.6*	*2.2*	*2.4*
Q3	*−11.4*	*−4.0*	*−1.5*	*1.8*	*−1.6*	*3.7*	*1.5*	*2.1*	*4.1*	*1.8*	*2.6*	*1.5*	*1.8*
Q4	*−5.9*	*−1.6*	*−4.4*	*0.3*	*−3.9*	*3.8*	*3.2*	*1.7*	*4.3*	*2.7*	*3.2*	*1.5*	*1.8*
2002 Q1	*9.6*	*0.8*	*−5.0*	*−3.8*	*−4.3*	*3.9*	*4.1*	*1.9*	*2.6*	*2.8*	*2.9*	*1.4*	*1.5*
Q2	*14.1*	*2.4*	*−3.4*	*−1.7*	*−2.5*	*3.1*	*4.4*	*1.0*	*1.3*	*2.8*	*2.5*	*1.5*	*1.5*
Q3	*14.8*	*−5.2*	*−2.2*	*1.3*	*−2.2*	*4.1*	*4.9*	*2.8*	*1.9*	*2.6*	*2.9*	*1.9*	*2.0*
Q4	*11.0*	*0.8*	*−1.6*	*2.5*	*−0.8*	*4.2*	*4.8*	*3.3*	*0.8*	*2.1*	*2.4*	*1.9*	*1.9*
2003 Q1	*−0.5*	*−0.5*	*−0.8*	*1.1*	*−0.6*	*2.8*	*3.1*	*1.9*	*2.7*	*1.8*	*2.4*	*2.1*	*2.1*
Q2	*−2.8*	*−8.7*	*−0.2*	*0.8*	*−1.2*	*5.3*	*3.7*	*3.3*	*2.1*	*1.8*	*2.4*	*2.1*	*2.4*
Q3	*−2.3*	*−2.2*	*−0.5*	*0.4*	*−0.6*	*6.7*	*3.7*	*3.0*	*2.3*	*2.3*	*2.7*	*2.6*	*2.7*
Q4	*−1.3*	*−8.9*	*1.8*	*2.2*	*0.5*	*5.9*	*3.5*	*2.2*	*4.2*	*2.7*	*3.3*	*3.2*	*3.5*
2004 Q1	*1.5*	*−10.0*	*2.2*	*4.8*	*0.9*	*5.9*	*5.6*	*2.4*	*4.5*	*2.9*	*3.9*	*3.5*	*3.7*
Q2	*0.9*	*−5.4*	*2.9*	*2.7*	*1.9*	*4.0*	*5.5*	*2.9*	*4.6*	*3.1*	*4.2*	*3.6*	*3.8*
Q3	*0.8*	*−8.1*	*1.5*	*2.0*	*0.4*	*1.8*	*4.9*	*2.5*	*4.6*	*2.1*	*3.6*	*2.8*	*3.1*
Q4	*1.1*	*−8.6*	*1.2*	*−0.7*	*0.0*	*1.9*	*3.8*	*3.4*	*3.3*	*1.5*	*3.0*	*2.2*	*2.5*
2005 Q1	*−0.3*	*−7.7*	*−0.1*	*−2.5*	*−1.1*	*1.8*	*1.5*	*3.6*	*2.7*	*1.8*	*2.4*	*1.5*	*1.8*
Q2	*1.4*	*−7.9*	*−1.1*	*−0.4*	*−1.8*	*2.2*	*0.6*	*2.3*	*3.5*	*1.7*	*2.2*	*1.4*	*1.6*
Q3	*0.1*	*−10.8†*	*−0.1*	*−1.8†*	*−1.3*	*2.0*	*0.3†*	*2.8†*	*3.1*	*2.6†*	*2.3†*	*1.5*	*1.8*

1 Estimates cannot be regarded as accurate to the last digit shown.
2 Weights may not sum to the totals due to rounding. The weights shown are in proportion to total gross value added (GVA) in 2002, and are used to com- bine the industry output indices to calculate the totals for 2003 and 2004. For 2002 and earlier, totals are calculated using the equivalent weights for the previous year (e.g. totals for 2002 use 2001 weights).

3 Components of output are valued at basic prices, which excludes taxes and subsidies on production

Sources: Office for National Statistics;
Enquiries Columns 1-11 01633 813126;
Column 12 020 7533 6031

**Gross value added chained volume measures
at basic prices by category of output**

2002=100

Transport and
communication
8.0%

15.7%

Distribution, hotels and
catering; repairs

5.9% Construction

20.1% Production

Other services
49.3%

1.0%

Agriculture,
forestry
and fishing

**Share of output
2002**

Gross value
added

Total Production
industries

2.9 Gross value added chained volume indices at basic prices, by category of output: Service industries

2002 = 100

| | Distribution hotels and catering; repairs | | Transport, storage and communication | | Business services and finance | | | Government and other services | | | | | |
	Motor trades; wholesale and retail trade; repairs	Hotels and restaurants	Transport and storage	Post and telecommunication	Financial intermediation[3]	Real estate, renting and business activities	Ownership of dwellings	PAD[1]	Education	Health and social work	Other services[2]	Adjustment for financial services[4]	Total services
2002 weights	124	34	48	31	68	162	78	50	60	67	52	-44	730
Annual													
	GDQC	GDQD	GDQF	GDQG	GDQI	GDQK	GDQL	GDQO	GDQP	GDQQ	GDQR	GDQJ	GDQS
2001	95.2	97.4	97.3	98.5	100.9	97.2	98.8	97.5	98.6	96.6	97.1	97.2	97.4
2002	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2003	102.9	105.9	100.8	105.4	101.8	105.7	102.2	103.5	100.5	103.2	101.2	110.8	102.7
2004	107.9	111.2	104.7	106.6	105.7	113.7	104.1	105.3	100.5	107.4	104.9	123.4	106.5
Quarterly													
2001 Q1	94.2	97.0	96.8	99.1	99.2	95.5	98.1	97.0	97.8	95.4	95.8	97.7	96.3
Q2	94.5	97.1	97.6	98.7	101.2	97.0	98.7	97.4	98.4	96.4	96.1	96.5	97.2
Q3	95.2	97.9	97.4	97.4	100.7	97.5	99.2	97.3	98.9	96.8	97.8	97.1	97.6
Q4	96.8	97.8	97.5	98.8	102.4	98.7	99.3	98.4	99.3	98.0	98.8	97.4	98.6
2002 Q1	98.7	98.3	99.3	100.1	99.5	98.3	99.4	98.9	99.9	98.2	100.2	97.4	99.1
Q2	99.5	98.5	99.3	98.6	98.9	99.8	99.7	99.8	99.9	100.1	99.5	99.0	99.6
Q3	100.4	100.3	100.5	99.5	100.9	100.8	100.0	100.2	100.0	100.7	99.8	100.4	100.4
Q4	101.4	102.8	100.9	101.8	100.8	101.1	100.8	101.1	100.2	101.0	100.6	103.2	101.0
2003 Q1	101.0	104.2	99.7	104.4	101.2	103.1	101.5	102.2	100.3	101.7	99.6	105.3	101.5
Q2	102.2	106.0	99.5	106.6	101.7	104.1	101.8	103.1	100.5	102.1	100.5	110.1	102.0
Q3	103.6	106.1	101.8	105.0	101.6	106.2	102.3	104.3	100.5	103.5	101.6	111.9	103.1
Q4	104.8	107.2	102.1	105.5	102.6	109.5	103.2	104.5	100.5	105.4	102.9	115.8	104.3
2004 Q1	106.8	109.5	103.0	105.2	105.2	111.8	103.6	105.2	100.4	107.1	102.5	119.8	105.5
Q2	108.0	111.3	105.0	105.6	103.7	112.9	104.0	105.1	100.4	106.5	107.1	121.1	106.3
Q3	108.6	111.3	104.3	107.9	105.9	114.3	104.1	105.4	100.7	107.5	105.0	123.6	106.8
Q4	108.3	112.6	106.5	107.7	107.9	115.9	104.7	105.6	100.6	108.5	105.2	129.0	107.4
2005 Q1	108.0	112.6	107.6	107.6	109.6	117.1	104.9	105.7	101.2	109.4	106.6	130.6	108.0
Q2	108.3	113.5	107.6	108.0	110.9	118.2	105.3	106.2	101.6	110.6	107.0	132.2	108.6
Q3	108.8	112.2	107.6	110.3	112.7	119.4	105.6	106.8	101.7	111.3	109.4	135.1	109.3[†]

Percentage change, quarter on corresponding quarter of previous year

Quarterly													
2001 Q1	3.7	−2.5	3.1	13.6	4.9	7.2	2.9	1.9	0.0	3.2	2.8	9.4	3.7
Q2	2.7	−0.5	1.8	10.4	6.0	6.0	3.9	1.5	0.5	2.6	2.8	4.0	3.6
Q3	2.0	−0.4	0.2	5.0	4.8	4.4	3.0	0.4	1.0	2.4	3.4	4.2	2.6
Q4	3.8	1.3	1.8	1.5	5.6	4.7	1.5	1.2	1.6	3.4	4.7	2.0	3.2
2002 Q1	4.8	1.3	2.6	1.0	0.3	2.9	1.3	2.0	2.1	2.9	4.6	−0.3	2.9
Q2	5.3	1.4	1.7	−0.1	−2.3	2.9	1.0	2.5	1.5	3.8	3.5	2.6	2.5
Q3	5.5	2.5	3.2	2.2	0.2	3.4	0.8	3.0	1.1	4.0	2.0	3.4	2.9
Q4	4.8	5.1	3.5	3.0	−1.6	2.4	1.5	2.7	0.9	3.1	1.8	6.0	2.4
2003 Q1	2.3	6.0	0.4	4.3	1.7	4.9	2.1	3.3	0.4	3.6	−0.6	8.1	2.4
Q2	2.7	7.6	0.2	8.1	2.8	4.3	2.1	3.3	0.6	2.0	1.0	11.2	2.4
Q3	3.2	5.8	1.3	5.5	0.7	5.4	2.3	4.1	0.5	2.8	1.8	11.5	2.7
Q4	3.4	4.3	1.2	3.6	1.8	8.3	2.4	3.4	0.3	4.4	2.3	12.2	3.3
2004 Q1	5.7	5.1	3.3	0.8	4.0	8.4	2.1	2.9	0.1	5.3	2.9	13.8	3.9
Q2	5.7	5.0	5.5	−0.9	2.0	8.5	2.2	1.9	−0.1	4.3	6.6	10.0	4.2
Q3	4.8	4.9	2.5	2.8	4.2	7.6	1.8	1.1	0.2	3.9	3.3	10.5	3.6
Q4	3.3	5.0	4.3	2.1	5.2	5.8	1.5	1.1	0.1	2.9	2.2	11.4	3.0
2005 Q1	1.1	2.8	4.5	2.3	4.2	4.7	1.3	0.5	0.8	2.1	4.0	9.0	2.4
Q2	0.3	2.0	2.5	2.3	6.9	4.7	1.3	1.0	1.2	3.8	−0.1	9.2	2.2
Q3	0.2	0.8	3.2	2.2	6.4	4.5	1.4	1.3	1.0	3.5	4.2	9.3	2.3[†]

1 Public administration and national defence; compulsory social security.
2 Comprising sections O, and P of the SIC(92).
3 Comprises section J of the SIC(92). This covers activities of institutions such as banks, building societies, securities dealers, insurance companies and pension funds. It also covers institutions whose activities are closely related to financial intermediation : for example fund managers and insurance brokers.

4 The weight and proxy series for financial intermediation are calculated before the deduction of interest receipts and payments to provide a better indication of the underlying activity for this section (see note 3). However, this overstates the contribution to GDP because interest flows should be treated as transfer payments rather than final consumption. The financial services adjustment, which has a negative weight, corrects for this.
5 See footnote 2 on Table 2.8

Source: Office for National Statistics; Enquiries 01633 813126

**Gross value added chained volume indices
at basic prices by category of output: service industries**

2002 = 100

Distribution;
hotels and
catering; repairs

Government
and other
services

Business
services and
finance

Transport
and
communication

Source : see data on Table 2.8
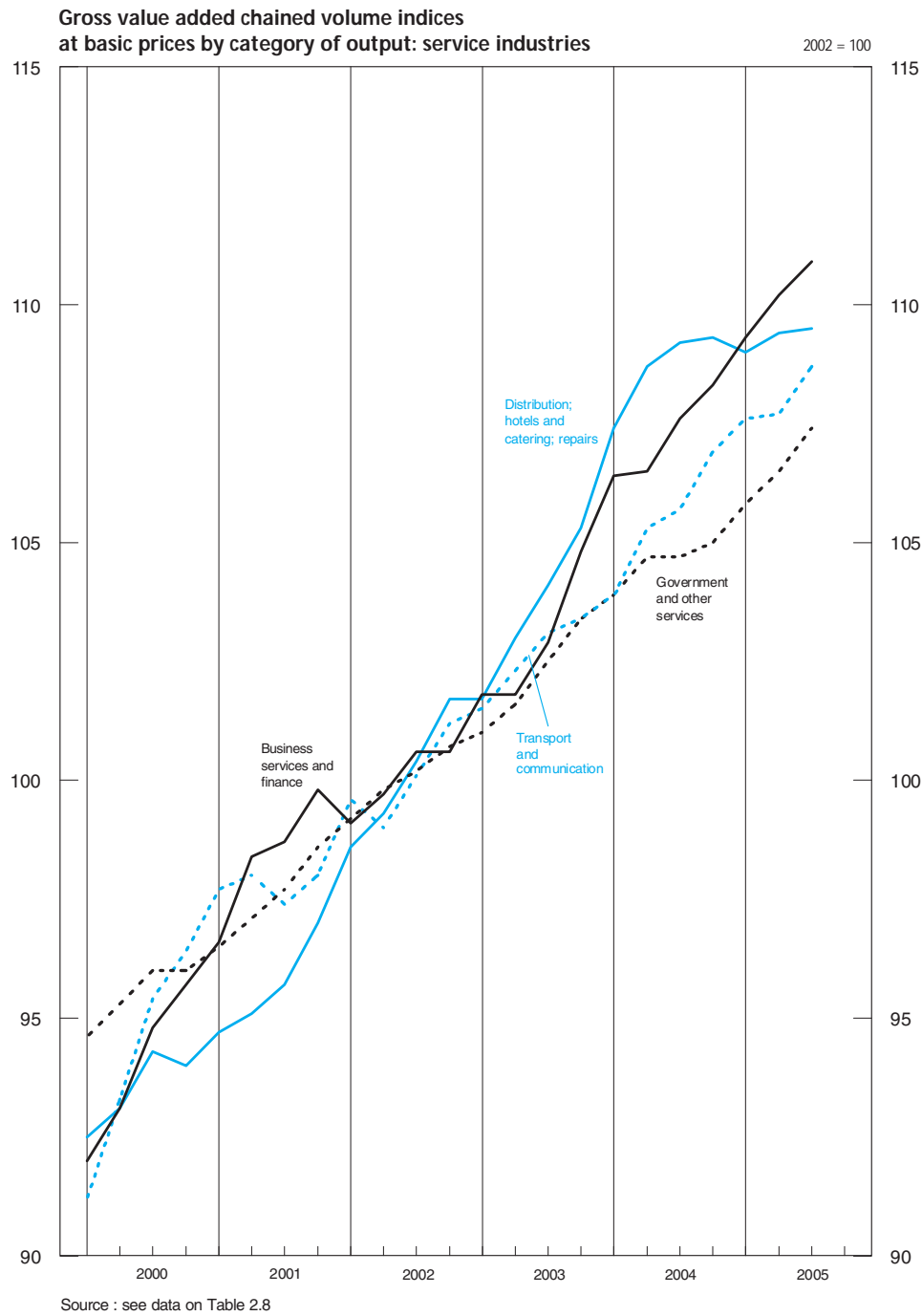
2.10 Summary capital accounts and net lending/net borrowing

£ million

	Non-financial corporations				Financial corporations				General Government			
	Gross saving[1]	Capital transfers (net receipts)	Gross capital formation[2]	Net acquisition of non-financial assets	Gross saving[1]	Capital transfers (net receipts)	Gross capital formation[2]	Net acquisition of non-financial assets	Gross saving[1]	Capital transfers (net receipts)	Gross capital formation[2]	Net acquisition of non-financial assets
Annual	RPJV	GZQW	RQBZ	RQAX	RPPS	GZQE	RPYP	RPYO	RPQC	GZQU	RPZF	RPZE
2001	89 893	2 661	103 976	1 208	−9 450	–	7 300	−43	25 272	−4 081	13 929	−916
2002	107 576	2 098	99 453	1 431	15 325	–	6 732	−36	1 602	−3 674	15 602	−1 087
2003	116 456	3 316	99 413	1 241	18 972	–	3 452	−3	−13 036	−5 525	18 244	−957
2004	126 726	3 130	104 693	1 564	23 498	–	3 915	−6	−11 668	−4 877	20 809	−1 071
Quarterly												
2001 Q1	22 815	599	25 568	271	−5 721	–	2 368	−9	8 635	−749	2 966	−222
Q2	21 835	627	26 171	305	−1 717	–	2 239	−11	6 420	−1 229	3 621	−221
Q3	23 676	719	26 324	331	−2 789	–	1 342	−11	6 372	−1 152	3 617	−234
Q4	21 567	716	25 913	301	777	–	1 351	−12	3 845	−951	3 725	−239
2002 Q1	25 584	517	25 016	379	2 755	–	843	−11	1 880	−1 054	3 803	−284
Q2	26 944	350	24 705	330	2 068	–	1 196	−10	192	−647	3 900	−233
Q3	27 663	561	24 418	358	4 060	–	3 068	−9	1 026	−971	4 019	−238
Q4	27 385	670	25 314	364	6 442	–	1 625	−6	−1 496	−1 002	3 880	−332
2003 Q1	29 099	729	22 061	282	6 274	–	2 120	−3	−2 249	−1 560	4 546	−205
Q2	27 352	947	24 024	332	3 677	–	876	–	−2 759	−1 468	4 190	−256
Q3	29 280	850	25 990	364	3 902	–	148	1	−2 867	−1 304	4 573	−252
Q4	30 725	790	27 338	263	5 119	–	308	−1	−5 161	−1 193	4 935	−244
2004 Q1	31 741	825	25 710	350	4 037	–	318	–	−3 104	−1 118	4 470	−249
Q2	31 800	897	25 862	395	5 772	–	765	−2	−2 024	−1 389	5 441	−272
Q3	28 661	680	26 652	424	6 368	–	1 324	−2	−3 012	−1 223	5 244	−280
Q4	34 524	728	26 469	395	7 321	–	1 508	−2	−3 528	−1 147	5 654	−270
2005 Q1	30 388	1 714	27 302	396	5 973	–	−524	−2	−2 158	−1 956	6 060	−265
Q2	34 609	1 029	25 653	411	4 559	–	153	−1	−2 424	−1 179	5 695	−280

	Households & NPISH				Net lending(+)/net borrowing(-)[3]					
	Gross saving[1]	Capital transfers (net receipts)	Gross capital formation[2]	Net acquisition of non-financial assets	Non-financial corporations	Financial corporations	General government	Households & NPISH	Rest of the world[4]	Statistical Discrepancy
Annual	RPQL	GZQI	RPZV	RPZU	RQAW	RPYN	RPZD	RPZT	RQCH	DJDS
2001	44 352	3 023	43 996	−152	−15 981	−16 707	8 178	3 531	20 979	–
2002	34 691	2 876	50 268	−176	4 864	8 629	−16 587	−12 525	15 619	–
2003	40 969	3 876	55 475	−210	15 290	15 523	−35 848	−10 420	15 455	–
2004	34 700	4 238	62 496	−276	20 430	19 589	−36 283	−23 282	21 327	−1 781
Quarterly										
2001 Q1	12 161	418	10 881	−25	−3 363	−8 080	5 142	1 723	4 578	–
Q2	11 344	1 266	10 540	−36	−4 867	−3 945	1 791	2 106	4 915	–
Q3	10 640	747	11 628	−44	−3 009	−4 120	1 837	−197	5 489	–
Q4	10 207	592	10 947	−47	−4 742	−562	−592	−101	5 997	–
2002 Q1	7 468	787	12 028	−47	−68	1 923	−2 693	−3 726	4 564	–
Q2	9 218	556	12 968	−45	1 543	882	−4 122	−3 149	4 846	–
Q3	9 278	697	12 149	−43	2 713	1 001	−3 726	−2 131	2 143	–
Q4	8 727	836	13 123	−41	676	4 823	−6 046	−3 519	4 066	–
2003 Q1	9 343	1 156	13 018	−46	6 110	4 157	−8 150	−2 473	355	–
Q2	10 282	779	13 255	−49	3 047	2 801	−8 161	−2 145	4 457	–
Q3	10 130	863	14 525	−55	2 938	3 753	−8 492	−3 477	5 278	–
Q4	11 214	1 078	14 677	−60	3 195	4 812	−11 045	−2 325	5 365	–
2004 Q1	9 460	1 100	15 318	−64	5 698	3 719	−8 443	−4 694	4 062	−342
Q2	8 018	1 197	15 766	−68	5 620	5 009	−8 582	−6 483	4 864	−428
Q3	8 992	935	15 611	−71	1 501	5 046	−9 199	−5 613	8 754	−489
Q4	8 230	1 006	15 801	−73	7 611	5 815	−10 059	−6 492	3 647	−522
2005 Q1	9 117	1 877	16 863	−76	3 055	6 499	−9 909	−5 793	6 604	−457
Q2	10 327	926	17 382	−79	8 726	4 407	−9 018	−6 050	2 395	−460

1 Before providing for depreciation, inventory holding gains.
2 Comprises gross fixed capital formation and changes in inventories and acquisitions less disposals of valuables.
3 This balance is equal to gross saving *plus* capital transfers *less* gross fixed capital formation, *less* Net acquisition of non-financial assets, *less* changes in inventories.
4 Equals, the current balance of payments accounts, *plus* capital transfers.

Sector net lending/net borrowing £ million
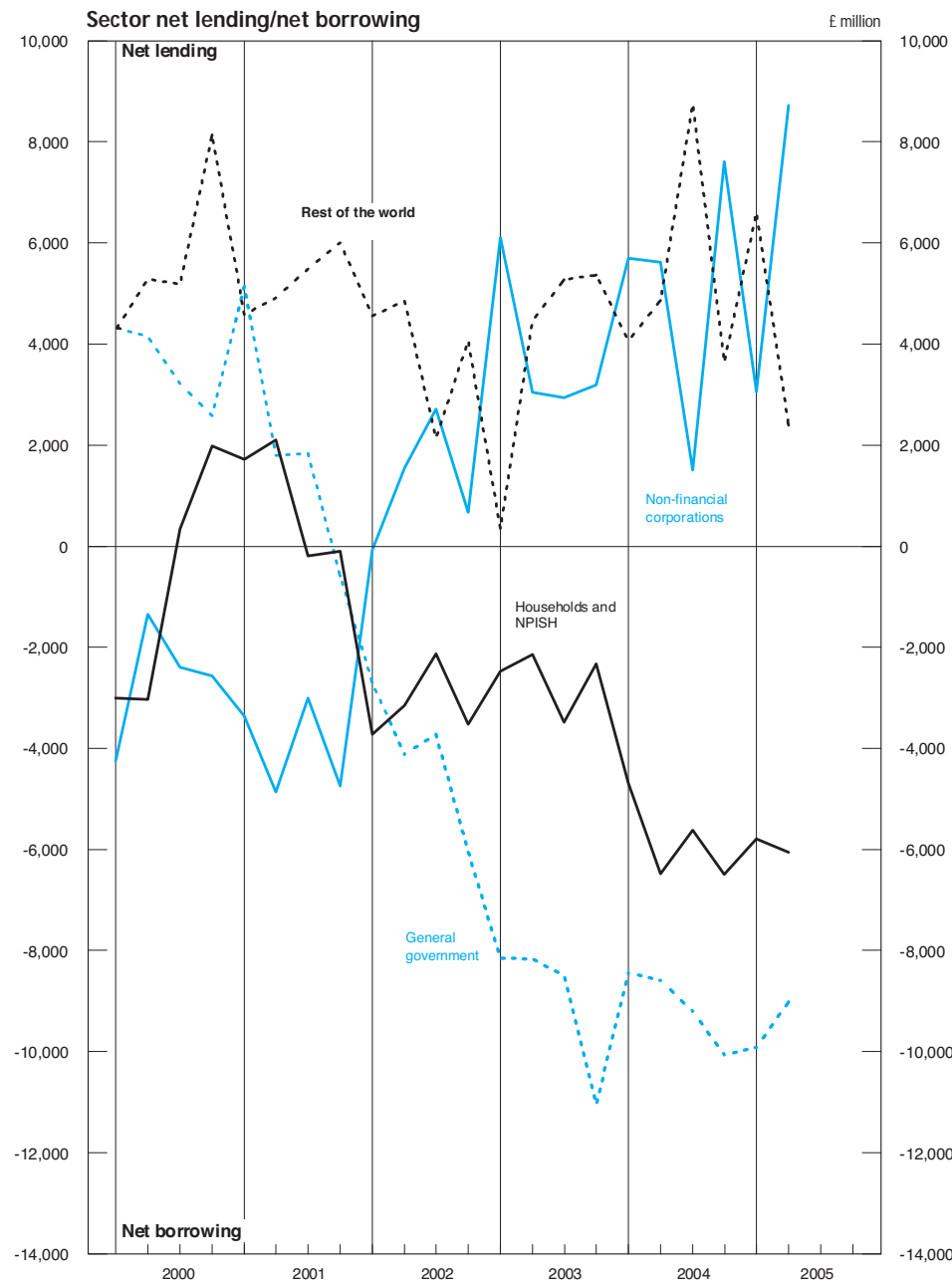
2.11 Private Non-Financial Corporations : Allocation of Primary Income Account

£ million

	Resources							Uses				
	Gross operating surplus							Property income payments				
	Gross trading profits										Gross balance of primary incomes [1]	Share of gross national income [1] (%)
	Continental shelf companies	Others[1]	Rental of buildings	*less* Inventory holding gains	Gross operating surplus+[1]	Property income receipts	Total resources[1,2]	Total payments	*of which* Dividends	*of which* Interest		

Annual

	CAGD	CAED	FCBW	-DLRA	CAER	RPBM	RPBN	RPBP	RVFT	ROCG	RPBO	NRJL
1995	12 124	125 151	9 379	−4 489	142 165	42 948	185 113	95 631	46 218	24 098	89 482	12.5
1996	15 726	136 579	8 948	−958	160 295	45 712	206 007	104 695	51 609	23 965	101 312	13.3
1997	14 002	149 176	9 254	−361	172 071	48 067	220 138	111 546	56 250	26 541	108 592	13.4
1998	11 701	153 282	9 724	753	175 460	49 543	225 003	110 015	51 578	31 095	114 988	13.2
1999	13 669	157 101	10 742	−1 801	179 711	48 045	227 756	118 244	61 101	31 016	109 512	12.1
2000	20 936	156 678	11 657	−2 941	186 330	60 525	246 855	128 508	55 846	37 912	118 347	12.4
2001	19 696	154 292	12 304	434	186 726	72 749	259 475	145 111	77 516	39 419	114 364	11.4
2002	19 132	161 586	12 885	−2 856	190 747	66 330	257 077	126 455	61 580	36 459	130 622	12.2
2003	18 631	172 608	13 652	−4 148	200 743	72 178	272 921	135 219	71 336	36 007	137 702	12.2
2004	18 897	186 020	14 225	−4 113	215 029	77 738	292 767	142 343	70 649	41 104	150 424	12.6

Quarterly

	CAGD	CAED	FCBW	-DLRA	CAER	RPBM	RPBN	RPBP	RVFT	ROCG	RPBO	NRJL
1995 Q1	2 966	31 468	2 264	−1 738	34 960	9 221	44 181	21 980	9 747	5 620	22 201	12.6
Q2	3 113	30 827	2 336	−1 588	34 688	10 022	44 710	22 293	9 732	5 959	22 417	12.7
Q3	2 934	31 550	2 379	−1 181	35 682	11 776	47 458	25 500	13 092	6 112	21 958	12.2
Q4	3 111	31 306	2 400	18	36 835	11 929	48 764	25 858	13 647	6 407	22 906	12.5
1996 Q1	3 529	32 829	2 331	−800	37 799	10 997	48 796	27 293	12 654	6 119	21 503	11.5
Q2	3 935	33 170	2 248	−102	39 409	12 005	51 414	24 196	11 156	5 964	27 218	14.4
Q3	4 087	34 782	2 192	−208	40 849	10 185	51 034	25 512	12 420	5 895	25 522	13.3
Q4	4 175	35 798	2 177	152	42 238	12 525	54 763	27 694	15 379	5 987	27 069	14.0
1997 Q1	3 891	36 976	2 247	−23	43 124	10 951	54 075	25 631	12 345	6 125	28 444	14.4
Q2	3 294	37 239	2 294	239	43 083	11 608	54 691	27 945	14 723	6 623	26 746	13.2
Q3	3 454	37 747	2 341	−506	43 039	13 883	56 922	28 519	15 210	6 627	28 403	13.8
Q4	3 363	37 214	2 372	−71	42 825	11 625	54 450	29 451	13 972	7 166	24 999	12.1
1998 Q1	3 161	36 871	2 414	107	43 101	13 795	56 896	30 385	15 077	7 545	26 511	12.6
Q2	3 105	37 239	2 424	53	42 788	11 590	54 378	26 444	11 541	7 735	27 934	13.0
Q3	2 780	39 682	2 435	315	44 757	11 711	56 468	26 385	11 509	7 965	30 083	13.6
Q4	2 655	39 490	2 451	278	44 814	12 447	57 261	26 801	13 451	7 850	30 460	13.7
1999 Q1	2 603	38 895	2 592	−302	44 006	7 978	51 984	18 758	7 482	7 464	33 226	15.1
Q2	3 018	40 192	2 647	−440	45 681	14 108	59 789	36 939	23 479	7 413	22 850	10.2
Q3	3 955	38 736	2 715	−645	44 398	11 297	55 695	29 934	14 595	7 806	25 761	11.3
Q4	4 093	39 278	2 788	−414	45 626	14 662	60 288	32 613	15 545	8 333	27 675	12.0
2000 Q1	4 626	38 558	2 801	−702	45 649	14 310	59 959	32 410	15 181	8 844	27 549	11.7
Q2	5 134	38 494	2 875	−830	46 057	14 446	60 503	30 455	12 370	9 405	30 048	12.7
Q3	5 407	38 882	2 953	−799	45 922	15 138	61 060	31 071	12 127	9 615	29 989	12.5
Q4	5 769	40 744	3 028	−610	48 702	16 631	65 333	34 572	16 168	10 048	30 761	12.7
2001 Q1	5 450	36 936	3 039	329	46 265	17 627	63 892	34 961	15 759	10 406	28 931	11.7
Q2	5 348	36 862	3 071	5	45 747	18 820	64 567	36 530	19 491	9 929	28 037	11.2
Q3	4 697	39 808	3 093	−52	46 904	21 158	68 062	38 796	21 835	10 107	29 266	11.6
Q4	4 201	40 686	3 101	152	47 810	15 144	62 954	34 824	20 431	8 977	28 130	11.0
2002 Q1	4 329	41 071	3 181	−733	47 848	17 375	65 223	34 242	18 302	9 077	30 981	11.9
Q2	4 774	41 177	3 193	−762	48 382	16 111	64 493	31 588	15 336	9 123	32 905	12.4
Q3	4 771	39 943	3 232	−384	47 562	16 242	63 804	30 462	14 917	9 083	33 342	12.3
Q4	5 258	39 395	3 279	−977	46 955	16 602	63 557	30 163	13 025	9 176	33 394	12.2
2003 Q1	5 116	41 381	3 337	−761	49 073	17 415	66 488	31 951	15 883	9 146	34 537	12.4
Q2	4 047	42 817	3 393	−1 286	48 971	18 853	67 824	35 453	19 072	8 851	32 371	11.6
Q3	4 951	44 101	3 442	−912	51 582	18 770	70 352	35 302	19 538	8 904	35 050	12.4
Q4	4 517	44 309	3 480	−1 189	51 117	17 140	68 257	32 513	16 843	9 106	35 744	12.4
2004 Q1	4 700	45 273	3 507	−908	52 572	17 688	70 260	33 098	16 459	9 585	37 162	12.7
Q2	4 718	45 963	3 534	−799	53 416	18 219	71 635	33 515	16 016	10 189	38 120	12.9
Q3	4 883	46 990	3 570	−1 051	54 392	20 562	74 954	40 240	21 750	10 569	34 714	11.7
Q4	4 596	47 794	3 614	−1 355	54 649	21 269	75 918	35 490	16 424	10 761	40 428	13.2
2005 Q1	4 895	47 471	3 651	−1 143	54 874	22 469	77 343	40 076	21 312	11 227	37 267	12.2
Q2	5 270	47 748	3 687	−453	56 252	23 804	80 056	38 048	18 156	11 985	42 008	13.5

1 Quarterly alignment adjustment included in this series.
2 Total resources equals total uses.

Source: Office for National Statistics; Enquiries 020 7533 6014

Private Non-financial corporations: allocation of primary income account
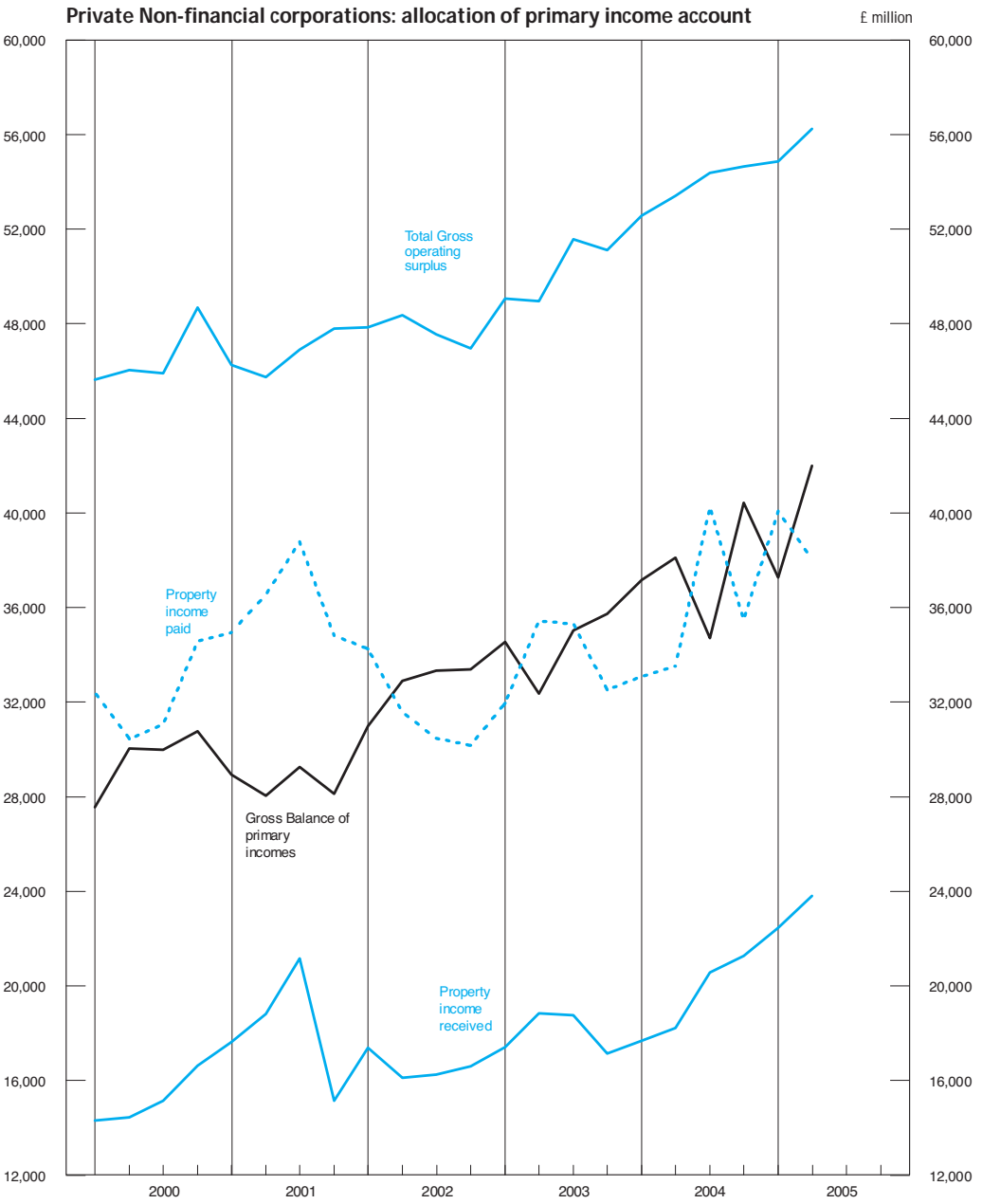
£ million

2.12 Private Non-financial Corporations :
Secondary Distribution of Income Account and Capital Account

£ million

| | Secondary Distribution of Income Account | | | | | | Capital Account | | | | | |
| | Resources | | | Uses | | | Changes in liabilities & net worth | | Changes in assets | | | |
	Gross balance of primary incomes [1]	Other resources [2]	Total [1,3]	Taxes on income	Other uses [4]	Gross disposable income [1,5]	Net capital transfer receipts	Total [1]	Gross fixed capital formation	Changes in inventories [1]	Other changes in assets [6]	Net lending (+) or borrowing (-) [1,7]
	RPBO	NROQ	RPKY	RPLA	NROO	RPKZ	NROP	RPXH	ROAW	DLQY	NRON	RQBV
Annual												
1995	89 482	7 704	97 186	18 953	8 104	70 129	433	70 562	64 444	4 542	388	1 188
1996	101 312	8 420	109 732	23 080	9 938	76 714	428	77 142	72 778	1 672	263	2 429
1997	108 592	7 097	115 689	28 558	7 576	79 555	671	80 226	81 089	3 949	401	−5 213
1998	114 988	8 179	123 167	26 877	8 623	87 667	1 081	88 748	90 180	4 533	1 287	−7 252
1999	109 512	7 875	117 387	22 608	8 444	86 335	958	87 293	94 463	6 174	1 036	−14 380
2000	118 347	9 990	128 337	26 188	10 403	91 746	405	92 151	96 873	5 512	776	−11 010
2001	114 364	9 229	123 593	26 061	9 640	87 892	1 621	89 513	98 035	5 941	1 138	−15 601
2002	130 622	9 889	140 511	24 432	10 311	105 768	1 093	106 861	96 819	2 677	1 212	6 153
2003	137 702	10 199	147 901	23 461	10 633	113 807	2 692	116 499	95 556	3 954	862	16 127
2004	150 424	10 380	160 804	26 223	10 826	123 755	2 603	126 358	100 325	4 467	1 119	20 447
Quarterly												
1995 Q1	22 201	1 825	24 026	4 252	1 922	17 852	127	17 979	14 794	−268	121	3 332
Q2	22 417	1 936	24 353	5 420	2 032	16 901	98	16 999	16 117	2 234	125	−1 477
Q3	21 958	1 953	23 911	4 368	2 049	17 494	102	17 596	16 460	1 695	87	−646
Q4	22 906	1 990	24 896	4 913	2 101	17 882	106	17 988	17 073	881	55	−21
1996 Q1	21 503	2 238	23 741	6 109	3 336	14 296	125	14 421	17 497	1 218	63	−4 357
Q2	27 218	2 219	29 437	5 660	2 369	21 408	102	21 510	17 426	322	71	3 691
Q3	25 522	1 994	27 516	5 944	2 124	19 448	96	19 544	18 437	1	57	1 049
Q4	27 069	1 969	29 038	5 367	2 109	21 562	105	21 667	19 418	131	72	2 046
1997 Q1	28 444	1 771	30 215	7 017	1 888	21 310	233	21 543	19 263	740	64	1 476
Q2	26 746	1 757	28 503	7 763	1 901	18 839	164	19 003	20 458	515	94	−2 064
Q3	28 403	1 739	30 142	6 909	1 848	21 385	131	21 516	20 059	1 714	103	−360
Q4	24 999	1 830	26 829	6 869	1 939	18 021	143	18 164	21 309	980	140	−4 265
1998 Q1	26 511	2 217	28 728	6 768	2 328	19 632	343	19 975	21 896	1 376	256	−3 553
Q2	27 934	2 099	30 033	6 829	2 210	20 994	220	21 214	22 381	30	381	−1 578
Q3	30 083	1 891	31 974	6 712	2 002	23 260	248	23 508	23 326	954	379	−1 151
Q4	30 460	1 972	32 432	6 568	2 083	23 781	270	24 051	22 577	2 173	271	−970
1999 Q1	33 226	2 037	35 263	5 543	2 264	27 456	344	27 800	23 303	2 180	301	2 016
Q2	22 850	1 925	24 775	4 841	2 038	17 896	199	18 095	23 035	861	315	−6 116
Q3	25 761	1 608	27 369	5 868	1 722	19 779	216	19 995	24 096	1 275	191	−5 567
Q4	27 675	2 305	29 980	6 356	2 420	21 204	199	21 403	24 029	1 858	229	−4 713
2000 Q1	27 549	2 475	30 024	7 059	2 592	20 373	315	20 688	23 769	1 358	193	−4 632
Q2	30 048	2 429	32 477	6 410	2 526	23 541	20	23 561	23 549	1 123	157	−1 268
Q3	29 989	2 734	32 723	6 491	2 833	23 399	34	23 433	24 256	1 481	158	−2 462
Q4	30 761	2 352	33 113	6 228	2 452	24 433	36	24 469	25 299	1 550	268	−2 648
2001 Q1	28 931	2 253	31 184	6 489	2 354	22 341	200	22 541	24 862	734	238	−3 293
Q2	28 037	2 377	30 414	6 591	2 480	21 343	439	21 782	24 713	1 424	326	−4 681
Q3	29 266	2 262	31 528	6 011	2 365	23 152	485	23 637	24 730	1 606	297	−2 996
Q4	28 130	2 337	30 467	6 970	2 441	21 056	497	21 553	23 730	2 177	277	−4 631
2002 Q1	30 981	2 392	33 373	5 709	2 496	25 168	333	25 501	24 196	828	336	141
Q2	32 905	2 396	35 301	6 282	2 501	26 518	300	26 818	24 183	529	282	1 824
Q3	33 342	2 501	35 843	6 108	2 607	27 128	392	27 520	24 017	406	306	2 791
Q4	33 394	2 600	35 994	6 333	2 707	26 954	68	27 022	24 423	914	288	1 397
2003 Q1	34 537	2 562	37 099	5 964	2 669	28 466	541	29 007	22 504	−419	197	6 725
Q2	32 371	2 616	34 987	5 479	2 724	26 784	653	27 437	24 478	−454	264	3 149
Q3	35 050	2 602	37 652	6 378	2 711	28 563	786	29 349	23 775	2 251	254	3 069
Q4	35 744	2 419	38 163	5 640	2 529	29 994	712	30 706	24 799	2 576	147	3 184
2004 Q1	37 162	2 577	39 739	5 960	2 687	31 092	749	31 841	25 218	492	269	5 862
Q2	38 120	2 734	40 854	6 987	2 845	31 022	742	31 764	24 668	1 232	273	5 591
Q3	34 714	2 614	37 328	6 644	2 726	27 958	537	28 495	25 367	1 328	293	1 507
Q4	40 428	2 455	42 883	6 632	2 568	33 683	575	34 258	25 072	1 415	284	7 487
2005 Q1	37 267	2 611	39 878	7 479	2 754	29 645	1 561	31 206	25 590	1 768	242	3 606
Q2	42 008	2 964	44 972	7 674	3 078	34 220	879	35 099	25 730	−75	305	9 139

1 Quarterly alignment adjustment included in this series.
2 Social contributions and other current transfers.
3 Total resources equals total uses.
4 Social benefits and other current transfers.
5 Also known as gross saving.
6 Acquisitions less disposals of valuables and non-produced non-financial assets.
7 Gross of fixed capital consumption.

Source: Office for National Statistics; Enquiries 020 7533 6014

Private Non-financial corporations : secondary distribution of income account   £ million
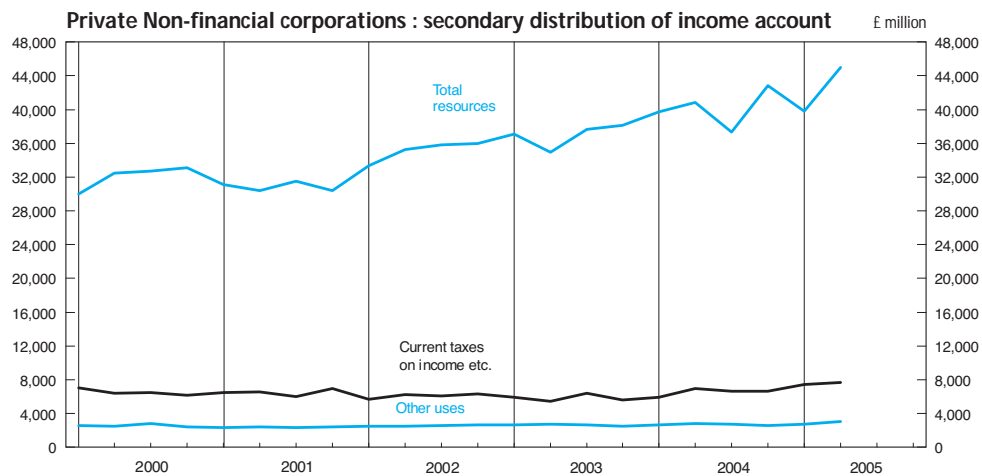
Private Non-financial corporations : capital account   £ million
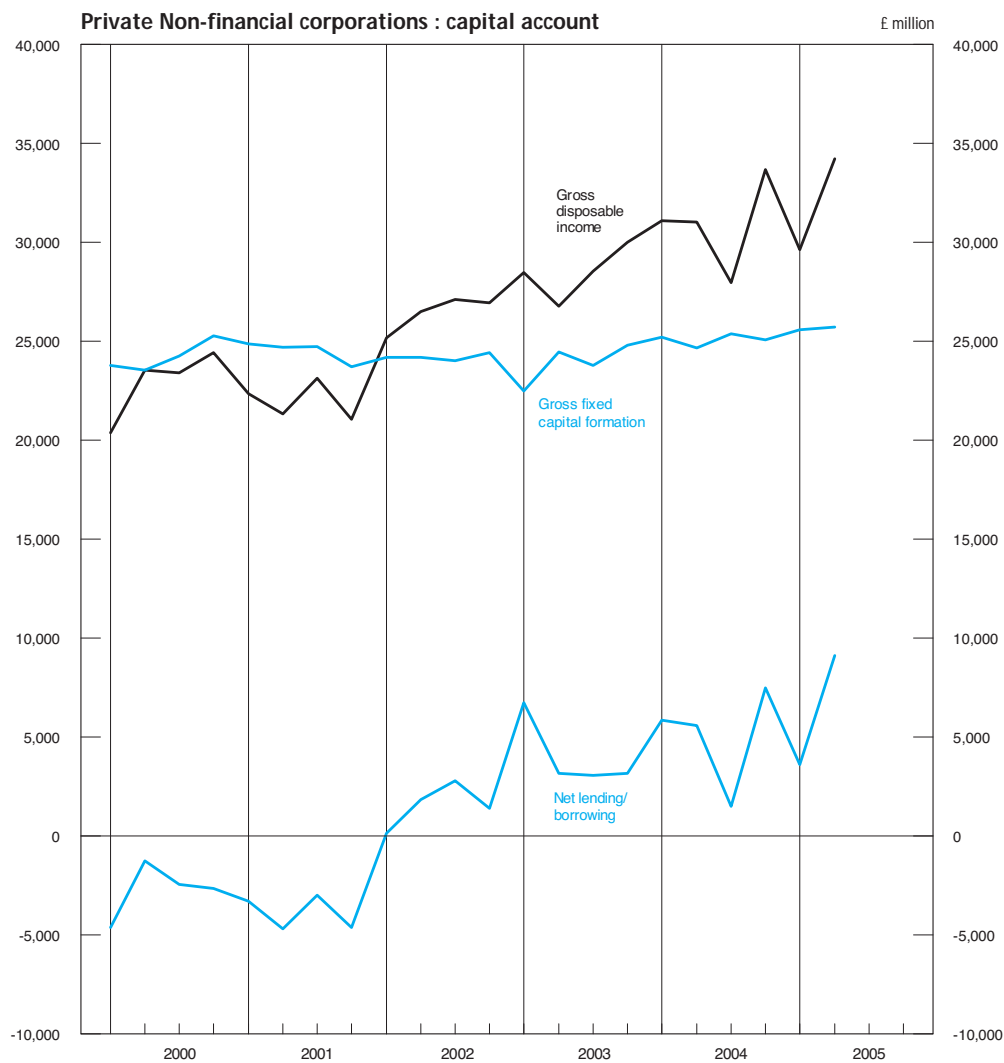
2.13 Balance of payments: current account

£ million

	Trade in goods and services						Income balance	Current transfers balance	Current balance	Current balance as % of GDP[1]
	Exports of goods+	Imports of goods+	Balance of trade in goods	Exports of services	Imports of services	Services balance				
Annual										
	BOKG	BOKH	BOKI	IKBB	IKBC	IKBD	HBOJ	IKBP	HBOP	AA6H
2000	187 936	220 912	−32 976	79 411	65 685	13 726	4 583	−9 752	−24 419	−2.6
2001	190 055	230 703	−40 648	83 061	69 358	13 703	11 371	−6 611	−22 185	−2.2
2002	186 511	233 598	−47 087	88 434	72 898	15 536	23 679	−8 615	−16 487	−1.6
2003	188 615	236 479	−47 864	93 616	76 734	16 882	24 192	−9 961	−16 751	−1.5
2004	190 950	251 210	−60 260	100 156	78 924	21 232	26 464	−10 755	−23 319	−2.0
Quarterly										
2000 Q1	44 374	51 854	−7 480	18 999	15 435	3 564	1 210	−1 825	−4 531	−1.9
Q2	46 851	54 256	−7 405	19 342	16 157	3 185	510	−2 178	−5 888	−2.5
Q3	47 445	56 289	−8 844	20 227	16 690	3 537	2 508	−2 723	−5 522	−2.3
Q4	49 266	58 513	−9 247	20 843	17 403	3 440	355	−3 026	−8 478	−3.5
2001 Q1	49 523	58 884	−9 361	21 764	17 534	4 230	2 182	−1 807	−4 756	−1.9
Q2	48 329	58 774	−10 445	21 922	17 464	4 458	3 202	−2 682	−5 467	−2.2
Q3	46 561	56 911	−10 350	18 775	17 495	1 280	3 355	29	−5 686	−2.3
Q4	45 642	56 134	−10 492	20 600	16 865	3 735	2 632	−2 151	−6 276	−2.5
2002 Q1	46 192	57 437	−11 245	21 716	17 897	3 819	4 993	−2 269	−4 702	−1.8
Q2	49 273	59 820	−10 547	21 475	18 169	3 306	4 649	−2 396	−4 988	−1.9
Q3	46 772	58 663	−11 891	22 936	18 449	4 487	6 521	−1 404	−2 287	−0.9
Q4	44 274	57 678	−13 404	22 307	18 383	3 924	7 516	−2 546	−4 510	−1.7
2003 Q1	49 034	59 686	−10 652	23 179	18 993	4 186	8 126	−2 237	−577	−0.2
Q2	46 813	57 856	−11 043	23 082	18 854	4 228	5 100	−2 898	−4 613	−1.7
Q3	46 302	58 602	−12 300	23 635	19 382	4 253	4 994	−2 501	−5 554	−2.0
Q4	46 466	60 335	−13 869	23 720	19 505	4 215	5 972	−2 325	−6 007	−2.1
2004 Q1	46 184	59 700	−13 516	24 613	19 131	5 482	5 992	−2 715	−4 757	−1.7
Q2	47 044	62 092	−15 048	24 905	19 583	5 322	6 676	−2 395	−5 445	−1.9
Q3	48 228	63 823	−15 595	24 884	19 875	5 009	4 358	−2 776	−9 004	−3.1
Q4	49 494	65 595	−16 101	25 754	20 335	5 419	9 438	−2 869	−4 113	−1.4
2005 Q1	49 129	64 864	−15 735	25 627	21 012	4 615	7 272	−3 488	−7 336	−2.5
Q2	52 056	66 646	−14 590	25 789	20 977	4 812	9 228	−2 500	−3 050	−1.0
Q3	53 176	69 883	−16 707	24 727	20 793	3 934	..	..	..	..
Monthly										
2003 Jan	16 537	20 055	−3 518	7 605	6 299	1 306	..	..	..	..
Feb	16 460	19 594	−3 134	7 762	6 335	1 427	..	..	..	..
Mar	16 037	20 037	−4 000	7 812	6 359	1 453	..	..	..	..
Apr	16 545	19 139	−2 594	7 669	6 193	1 476	..	..	..	..
May	15 293	19 405	−4 112	7 712	6 349	1 363	..	..	..	..
Jun	14 975	19 312	−4 337	7 701	6 312	1 389	..	..	..	..
Jul	15 675	19 479	−3 804	7 792	6 440	1 352	..	..	..	..
Aug	15 441	19 037	−3 596	7 921	6 489	1 432	..	..	..	..
Sep	15 186	20 086	−4 900	7 922	6 453	1 469	..	..	..	..
Oct	15 729	20 174	−4 445	7 852	6 275	1 577	..	..	..	..
Nov	15 110	19 919	−4 809	7 867	6 501	1 366	..	..	..	..
Dec	15 627	20 242	−4 615	8 001	6 729	1 272	..	..	..	..
2004 Jan	15 077	20 304	−5 227	8 121	6 440	1 681	..	..	..	..
Feb	15 254	19 434	−4 180	8 266	6 386	1 880	..	..	..	..
Mar	15 853	19 962	−4 109	8 226	6 305	1 921	..	..	..	..
Apr	15 720	20 737	−5 017	8 345	6 466	1 879	..	..	..	..
May	15 455	20 462	−5 007	8 301	6 510	1 791	..	..	..	..
Jun	15 869	20 893	−5 024	8 259	6 607	1 652	..	..	..	..
Jul	15 896	21 205	−5 309	8 193	6 574	1 619	..	..	..	..
Aug	15 901	21 233	−5 332	8 294	6 639	1 655	..	..	..	..
Sep	16 431	21 385	−4 954	8 397	6 662	1 735	..	..	..	..
Oct	16 202	21 741	−5 539	8 543	6 671	1 872	..	..	..	..
Nov	16 517	21 805	−5 288	8 616	6 775	1 841	..	..	..	..
Dec	16 775	22 049	−5 274	8 595	6 889	1 706	..	..	..	..
2005 Jan	16 270	21 675	−5 405	8 590	6 934	1 656	..	..	..	..
Feb	16 153	21 442	−5 289	8 575	7 011	1 564	..	..	..	..
Mar	16 706	21 747	−5 041	8 462	7 067	1 395	..	..	..	..
Apr	16 992	22 315	−5 323	8 479	7 008	1 471	..	..	..	..
May	16 895	21 995	−5 100	8 638	7 120	1 518	..	..	..	..
Jun	18 169	22 336	−4 167	8 672	6 849	1 823	..	..	..	..
Jul	17 350[†]	22 716[†]	−5 366[†]	8 621	7 040	1 581	..	..	..	..
Aug	17 734	23 634	−5 900	7 235	6 951	284	..	..	..	..
Sep	18 092	23 533	−5 441	8 586	7 021	1 565	..	..	..	..

1 Using series YBHA: GDP at current market prices

Sources: Office for National Statistics;
Enquiries Columns 1-3 020 7533 6064; Columns 4-6 & 8 020 7533 6090;
Columns 7, 9 & 10 020 7533 6078.

Balance of Payments : Current account

Balance of Trade in goods
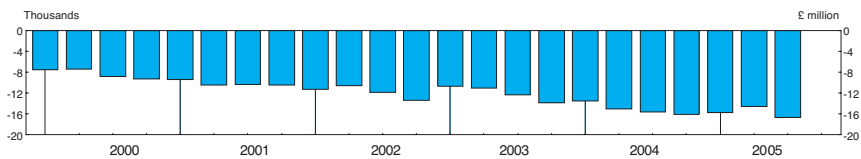
Services balance
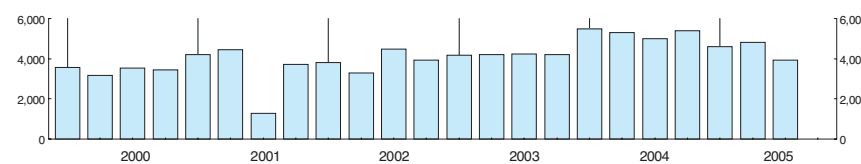
Income balance
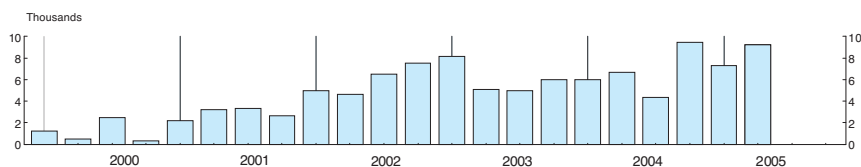
Current transfers balance
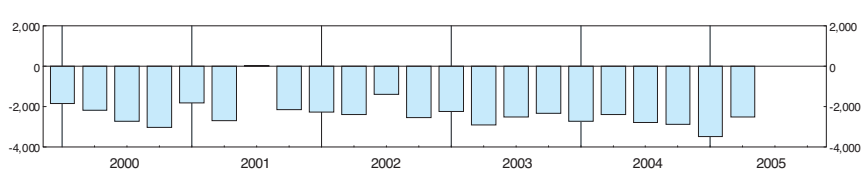
Current Balance
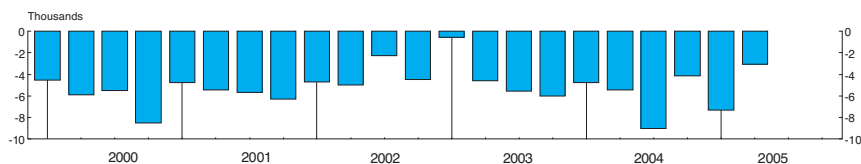
2.14 Trade in goods (on a balance of payments basis)

2002 = 100

	Volume indices (SA)		Price indices (NSA)		
	Exports	Imports	Exports	Imports	Terms of trade[1]
Annual					
	BQKU	BQKV	BQKR	BQKS	BQKT
2000	99.1	90.9	101.7	103.5	98.3
2001	101.7	95.9	100.0	102.6	97.5
2002	100.0	100.0	100.0	100.0	100.0
2003	99.7	102.0	101.8	99.3	102.5
2004	101.5	108.9	101.6	98.6	103.0
Quarterly					
2000 Q1	94.6	87.0	100.4	101.3	99.1
Q2	99.3	90.0	101.0	102.7	98.3
Q3	99.4	92.1	102.7	104.8	98.0
Q4	103.0	94.6	102.7	105.1	97.7
2001 Q1	104.2	95.9	101.6	104.7	97.0
Q2	101.8	95.8	101.8	104.6	97.3
Q3	100.9	95.4	99.3	101.7	97.6
Q4	100.0	96.4	97.4	99.5	97.9
2002 Q1	98.9	97.2	100.2	100.9	99.3
Q2	104.9	101.6	101.1	100.8	100.3
Q3	100.6	101.3	99.9	99.5	100.4
Q4	95.6	99.9	98.8	98.9	99.9
2003 Q1	103.5	102.9	101.8	99.5	102.3
Q2	99.0	99.7	102.2	99.2	103.0
Q3	97.6	100.9	102.2	99.6	102.6
Q4	98.9	104.4	101.1	98.8	102.3
2004 Q1	99.7	105.2	99.6	96.9	102.8
Q2	100.7	108.2	100.9	98.2	102.7
Q3	102.4	110.0	102.2	99.4	102.8
Q4	103.2	112.2	103.6	99.8	103.8
2005 Q1	102.1	110.2	104.2	100.6	103.6
Q2	109.0	112.9	104.6	101.1	103.5
Q3	110.5	116.3	107.4	103.9	103.4
Monthly					
2003 Jan	105.9	103.9	100.4	98.7	101.7
Feb	104.1	101.9	101.5	99.2	102.3
Mar	100.4	102.9	103.4	100.5	102.9
Apr	104.8	98.4	102.0	99.8	102.2
May	96.8	100.4	102.9	99.3	103.6
Jun	95.4	100.3	101.8	98.5	103.4
Jul	99.3	100.7	101.9	99.1	102.8
Aug	97.3	98.2	102.8	99.8	103.0
Sep	96.3	103.8	102.0	99.8	102.2
Oct	100.5	104.2	101.6	99.3	102.3
Nov	96.1	103.5	100.9	98.9	102.0
Dec	100.0	105.5	100.7	98.3	102.4
2004 Jan	97.1	107.3	99.7	97.2	102.6
Feb	99.4	103.3	98.7	96.0	102.8
Mar	102.5	104.9	100.4	97.6	102.9
Apr	101.1	108.7	100.7	97.8	103.0
May	99.0	106.5	101.7	98.9	102.8
Jun	102.1	109.4	100.3	98.0	102.3
Jul	102.4	110.8	100.6	98.3	102.3
Aug	101.1	110.0	102.3	99.6	102.7
Sep	103.7	109.3	103.7	100.4	103.3
Oct	100.3	110.9	105.3	101.1	104.2
Nov	102.7	111.3	103.9	99.9	104.0
Dec	106.5	114.4	101.7	98.3	103.5
2005 Jan	101.5	111.0	103.6	100.2	103.4
Feb	101.0	108.4	103.7	100.4	103.3
Mar	103.8	111.3	105.4	101.1	104.3
Apr	106.4	113.7	104.5	100.6	103.9
May	105.7	112.1	104.8	101.0	103.8
Jun	114.9	112.8	104.6	101.8	102.8
Jul	107.3[†]	113.1[†]	107.3	104.2[†]	103.0[†]
Aug	110.9	117.8	107.7[†]	104.0	103.6
Sep	113.4	117.9	107.1	103.6	103.4

1 Price index for exports expressed as a percentage of price index for imports.

Source: Office for National Statistics; Enquiries 020 7533 6064

Trade in goods

£ million

At current prices

Imports (f.o.b.)

Exports (f.o.b.)

2002=100

Volume index

Imports

Exports

2002=100

Price index

Exports

Imports
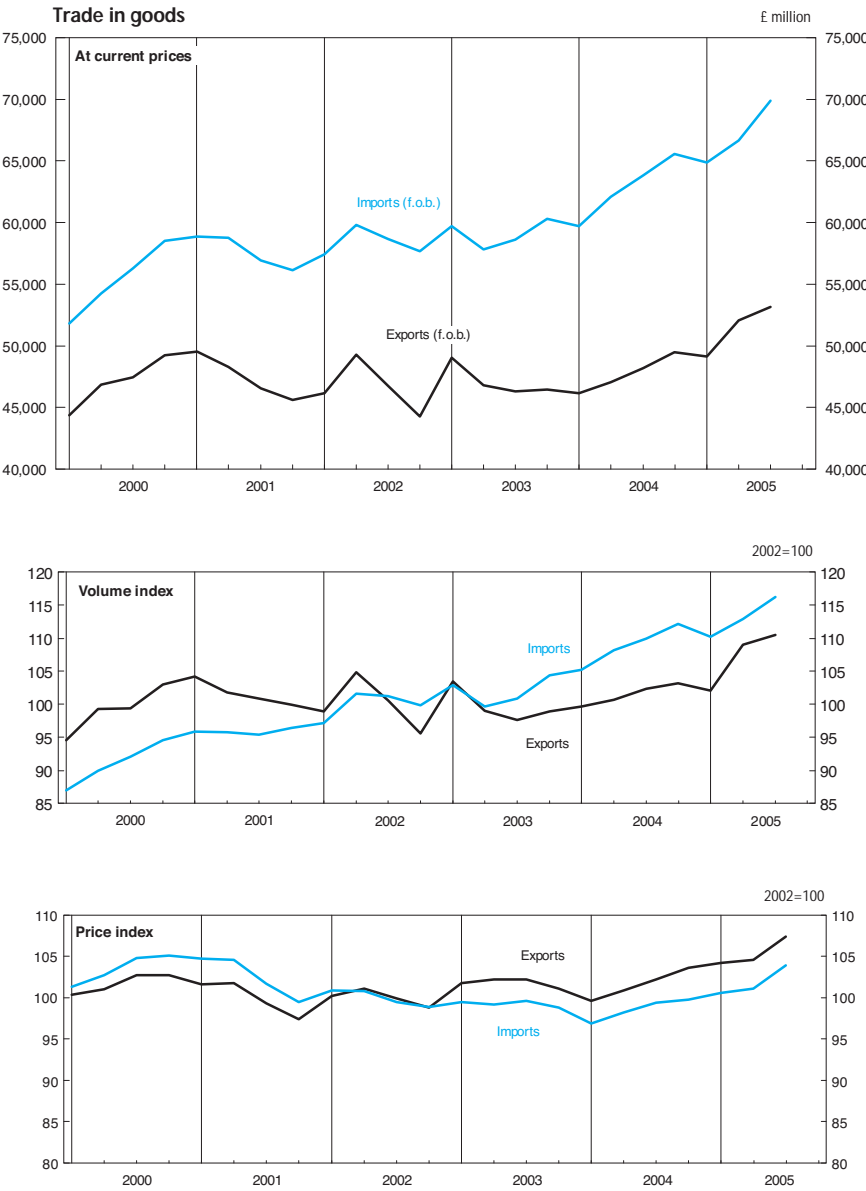
2.15 Measures of UK competitiveness in trade in manufactures

1995=100

	Summary measures						Export unit value index[1,6]				
	Relative export prices[6]	Relative wholesale prices[5] (1990=100)	IMF index of relative unit labour costs[6]		Import price competi- tiveness[2,4]	Relative profit- ability of exports[2,4]	United Kingdom	United States	Japan	France	Germany[3]
			Actual	Normalised							
	CTPC	CTPD	CTPE	CTPF	BBKM	BBKN	CTPI	CTPJ	CTPK	CTPL	CTPM
1997	111.4	114.7	130.4	123.6	105.9	97.4	98.7	101.2	83.8	86.0	80.3
1998	111.4	..	141.2	131.5	109.2	95.8	97.7	101.2	78.1	86.0	80.5
1999	114.2	..	141.7	133.9	109.7	94.4	97.4	101.1	82.7	81.4	76.7
2000	118.2	..	147.8	141.6	106.9	93.7	94.9	102.3	86.5	71.3	66.7
2001	117.0	..	143.9	141.4	105.6	95.8	90.7	102.3	78.3	69.5	64.7
2002	..	..	..	..	109.0	96.0	..	..	..	..	..
2000 Q1	119.4	..	149.4	142.1	108.7	92.0	99.3	102.1	86.2	76.0	71.5
Q2	118.2	..	148.9	141.2	108.6	93.2	95.8	102.5	86.2	72.1	67.5
Q3	116.7	..	146.2	140.2	107.0	94.6	93.0	102.6	87.2	70.1	65.4
Q4	117.9	..	146.8	142.7	105.4	94.9	91.4	102.3	86.5	67.6	62.8
2001 Q1	115.5	..	142.2	138.8	105.0	95.3	92.6	102.0	84.4	72.2	66.7
Q2	117.4	..	144.3	141.9	104.8	95.5	90.7	101.9	82.4	68.5	63.0
Q3	117.6	..	144.2	142.1	107.1	95.6	92.3	101.8	84.2	70.1	64.2
Q4	117.7	..	144.8	142.7	108.0	94.8	92.9	101.7	84.2	70.8	64.7
2002 Q1	..	..	..	..	109.2	95.9	..	..	..	..	..
Q2	..	..	..	..	109.4	96.8	..	..	..	..	..
Q3	..	..	..	..	108.0	95.7	..	..	..	..	..
Q4	..	..	..	..	109.3	94.6	..	..	..	..	..
2003 Q1	..	..	..	..	109.4	96.7	..	..	..	..	..

Percentage change, quarter on corresponding quarter of previous year

	CTPC	CTPD	CTPE	CTPF	BBKM	BBKN	CTPI	CTPJ	CTPK	CTPL	CTPM
2001 Q2	−0.7	..	−3.1	0.5	−3.5	2.5	−5.3	−0.6	−4.4	−5.0	−6.7
Q3	0.8	..	−1.4	1.4	0.1	1.1	−0.8	−0.8	−3.4	0.0	−1.8
Q4	−0.2	..	−1.4	0.0	2.5	−0.1	1.6	−0.6	−2.7	4.7	3.0
2002 Q1	..	..	..	..	4.0	0.6	..	..	..	..	..
Q2	..	..	..	..	4.4	1.4	..	..	..	..	..
Q3	..	..	..	..	0.8	0.1	..	..	..	..	..
Q4	..	..	..	..	1.2	−0.2	..	..	..	..	..
2003 Q1	..	..	..	..	0.2	0.8	..	..	..	..	..

	Wholesale price index[1] (1990=100)					Unit labour costs index[1,6]				
	United Kingdom	United States	Japan	France	Germany[3]	United Kingdom	United States	Japan	France	Germany[3]
	CTPN	CTPO	CTPP	CTPQ	CTPR	CTPS	CTPT	CTPU	CTPV	CTPW
1998	116.5	106.8	102.7	..	..	118.6	95.6	70.5	82.8	77.1
1999	115.1	108.4	114.1	..	..	116.2	95.1	77.9	79.3	73.7
2000	..	..	..	..	..	108.0	94.9	77.5	68.2	61.6
2001	..	..	..	..	..	103.3	100.8	71.1	66.4	59.5
1999 Q4	116.8	109.7	123.4	..	..	116.8	94.6	82.2	77.1	70.5
2000 Q1	..	..	..	..	..	115.6	94.0	81.3	73.1	67.2
Q2	..	..	..	..	..	109.8	94.1	78.8	69.0	62.9
Q3	..	..	..	..	..	104.6	94.9	76.1	66.8	59.5
Q4	..	..	..	..	..	102.2	96.5	74.0	64.3	57.5
2001 Q1	..	..	..	..	..	104.3	99.2	72.5	68.5	61.5
Q2	..	..	..	..	..	101.6	100.8	70.7	64.8	58.0
Q3	..	..	..	..	..	103.2	101.4	71.3	66.1	59.1
Q4	..	..	..	..	..	104.2	101.7	70.1	66.4	59.5

Percentage change, quarter on corresponding quarter of previous year

	CTPN	CTPO	CTPP	CTPQ	CTPR	CTPS	CTPT	CTPU	CTPV	CTPW
1999 Q4	−0.6	2.7	12.2	..	..	−3.6	−1.0	5.8	−12.0	−15.3
2000 Q1	..	..	..	..	..	−2.3	−1.1	3.4	−12.6	−14.8
Q2	..	..	..	..	..	−5.3	−1.3	5.8	−12.3	−17.2
Q3	..	..	..	..	..	−8.3	−0.7	−0.8	−14.4	−16.8
Q4	..	..	..	..	..	−12.5	2.0	−10.0	−16.6	−18.4
2001 Q1	..	..	..	..	..	−9.8	5.5	−10.8	−6.3	−8.5
Q2	..	..	..	..	..	−7.5	7.1	−10.3	−6.1	−7.8
Q3	..	..	..	..	..	−1.3	6.8	−6.3	−1.0	−0.7
Q4	..	..	..	..	..	2.0	5.4	−5.3	3.3	3.5

1 All the indices are based on data expressed in US dollars.
2 Excludes erratics (ships, North sea installations, aircraft, precious stones and silver bullion).
3 Includes the former German Democratic Republic as from 1991 Q1.
4 These series are on a SIC 92 basis.
5 This series is calculated using UK producer prices. All other country indices are wholesale price indices.
6 Quarterly data have been obtained by interpolating the annuals.

Sources: International Monetary Fund;
Office for National Statistics; Enquiries 020 7533 5914

Measures of UK trade competitiveness

1995 = 100

Import price competitiveness

1995 = 100

Relative normalised
unit labour costs

1995 = 100

Relative export prices
(Downward trend shows
more competitiveness)

Relative profitability
of exports (upward trend shows
profitability)
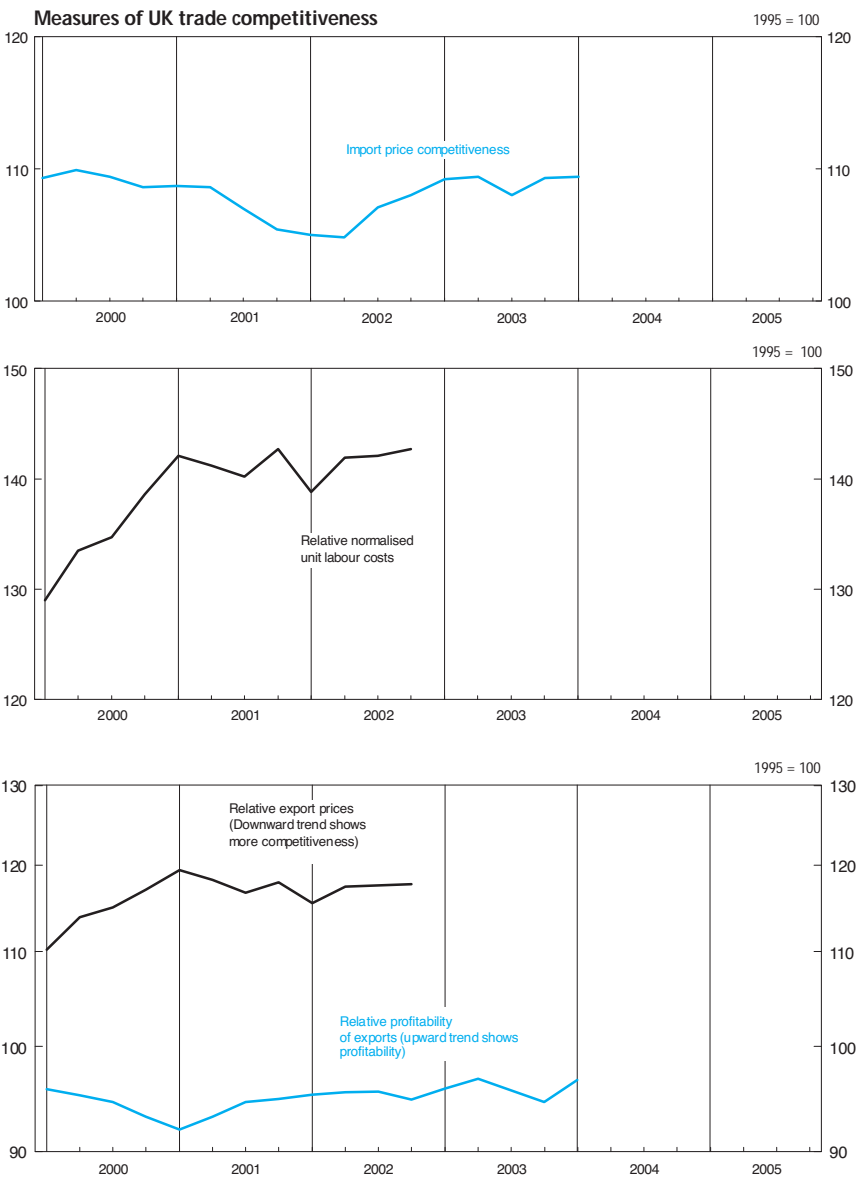
3.1 Prices

Not seasonally adjusted except series RNPE

	Producer price index (2000=100)		Consumer prices index[3,4] (1996=100)		Retail prices index (January 13, 1987=100)						Pensioner price index[6] (January 13, 1987=100)		
					All items (RPI)		All items excluding mortgage interest payments (RPIX)		All items excluding mortgage interest payments & indirect taxes (RPIY)[5]				Purchasing power of the pound[7] (NSA) (1985=100)
	Materials and fuel purchased by manu-facturing industry (SA)[1,2]	Output: all manufact-ured products: home sales	All items	Percentage change on a year earlier	Index	Percentage change on a year earlier	Index	Percentage change on a year earlier	Index	Percentage change on a year earlier	1-person household	2-person household	
			Index										
	RNPE	PLLU	CHVJ	CJYR	CHAW	CZBH	CHMK	CDKQ	CBZW	CBZX	CZIF	CZIU	FJAK
Annual													
2001	98.8	99.7	106.9	1.2	173.3	1.8	171.3	2.1	163.7	2.4	152.7	158.5	55
2002	94.4r†	99.8	108.3	1.3	176.2	1.7	175.1	2.2	167.5	2.3	155.3	160.9	54
2003	95.7r	101.3	109.8	1.4	181.3	2.9	180.0	2.8	172.0	2.7	158.1	163.8	52
2004	99.5	103.8	111.2	1.3	186.7	3.0	184.0	2.2	175.5	2.0	160.9	166.4	51
Quarterly													
2001 Q1	100.9†	99.7	105.7	0.9	171.8	2.6	168.9	1.9	161.1	1.6	150.6	156.5	55
Q2	101.8	100.1	107.3	1.5	173.9	1.9	171.8	2.3	164.1	2.6	153.3	159.3	54
Q3	98.2	99.8	107.3	1.5	174.0	1.8	172.1	2.4	164.6	2.8	153.0	158.9	54
Q4	94.2	99.3	107.4	1.0	173.8	1.0	172.4	2.0	165.0	2.4	153.9	159.3	55
2002 Q1	94.2	99.2	107.4	1.5	173.9	1.2	172.9	2.4	165.5	2.7	154.7	160.1	54
Q2	95.2r	99.8	108.3	0.9	176.0	1.2	175.0	1.9	167.1	1.8	155.3	161.0	54
Q3	94.2r	99.9	108.4	1.1	176.6	1.5	175.5	2.0	167.8	1.9	155.0	160.7	54
Q4	93.9r	100.1	109.0	1.6	178.2	2.5	176.9	2.6	169.5	2.7	156.1	161.7	53
2003 Q1	95.9r	100.9	109.0	1.5	179.2	3.0	177.9	2.9	170.6	3.1	156.7	162.6	53
Q2	94.8r	101.1	109.7	1.3	181.3	3.0	180.1	2.9	171.8	2.8	157.9	163.7	52
Q3	95.4r	101.3	109.9	1.4	181.8	2.9	180.5	2.8	172.3	2.7	158.3	164.0	52
Q4	96.7r	101.7	110.5	1.3	182.9	2.6	181.5	2.6	173.2	2.2	159.4	165.0	52
2004 Q1	95.7r	102.4	110.4	1.3	183.8	2.6	182.0	2.3	173.8	1.9	159.7	165.4	51
Q2	98.6r	103.4	111.2	1.4	186.3	2.8	184.0	2.2	175.4	2.1	160.9	166.6	51
Q3	100.5r	104.2	111.2	1.2	187.4	3.1	184.3	2.1	175.6	1.9	160.5	166.1	50
Q4	103.1r	105.1	112.0	1.4	189.2	3.4	185.6	2.3	177.1	2.3	162.3	167.6	50
2005 Q1	105.8r	105.2	112.3	1.7	189.7	3.2	186.0	2.2	177.5	2.1	163.4	168.3	50
Q2	108.4	106.3	113.4	1.9	191.9	3.0	188.1	2.2	179.3	2.2	164.8	169.8	49
Q3	113.0#	107.4p	113.9	2.4	192.6	2.8	188.7	2.4	179.9	2.4	165.1	170.1	49
Monthly													
2004 Jan	95.6r†	102.1	110.1	1.4	183.1	2.6	181.4	2.4	173.2	2.0	..	..	52
Feb	94.9r	102.3	110.4	1.3	183.8	2.5	182.0	2.3	173.9	1.9	..	..	51
Mar	96.6r	102.8	110.6	1.1	184.6	2.6	182.5	2.1	174.3	1.7	..	..	51
Apr	97.6r	103.1	111.0	1.2	185.7	2.5	183.6	2.0	174.9	1.8	..	..	51
May	99.9r	103.5	111.4	1.5	186.5	2.8	184.3	2.3	175.6	2.2	..	..	51
Jun	98.4r	103.6	111.3	1.6	186.8	3.0	184.2	2.3	175.6	2.3	..	..	51
Jul	99.1	103.8	111.0	1.4	186.8	3.0	183.8	2.2	175.1	2.0	..	..	51
Aug	100.2r	104.2	111.3	1.3	187.4	3.2	184.3	2.2	175.7	2.0	..	..	50
Sep	102.3r	104.5	111.4	1.1	188.1	3.1	184.7	1.9	176.1	1.7	..	..	50
Oct	105.0r	105.2	111.7	1.2	188.6	3.3	185.1	2.1	176.6	2.0	..	..	50
Nov	103.2r	105.3	111.9	1.5	189.0	3.4	185.4	2.2	176.9	2.2	..	..	50
Dec	101.2	104.9	112.5	1.6	189.9	3.5	186.4	2.5	177.9	2.5	..	..	50
2005 Jan	105.0r	104.8	111.9	1.6	188.9	3.2	185.2	2.1	176.7	2.0	..	..	50
Feb	105.3r	105.1	112.2	1.6	189.6	3.2	185.9	2.1	177.4	2.0	..	..	50
Mar	107.2	105.8	112.7	1.9	190.5	3.2	186.8	2.4	178.3	2.3	..	..	50
Apr	107.6	106.5	113.1	1.9	191.6	3.2	187.8	2.3	179.0	2.3	..	..	49
May	107.5	106.3	113.5	1.9	192.0	2.9	188.2	2.1	179.4	2.2	..	..	49
Jun	110.1	106.2	113.5	2.0	192.2	2.9	188.3	2.2	179.5	2.2	..	..	49
Jul	113.2	107.0	113.6	2.3	192.2	2.9	188.3	2.4	179.5	2.5	..	..	49
Aug	113.1r	107.3	114.0	2.4	192.6	2.8	188.6	2.3	179.8	2.3	..	..	49
Sep	112.6p	108.0p	114.2	2.5	193.1	2.7	189.3	2.5	180.5	2.5	..	..	49
Oct	112.9p	107.9p	114.3	2.3	193.3	2.5	189.5	2.4	180.7	2.3	..	..	49

Note: Figures marked with a 'p' are provisional.

1 Minor revisions have been made to seasonally adjusted figures previously published. These reflect the routine updating of the seasonal adjustment factor.

2 Data now include the Climate Change Levy introduced in April 2001 and the Aggregates Levy introduced in April 2002.

3 Inflation rates prior to 1997 and index levels prior to 1996 are estimated. Further details are given in *Economic Trends* No.541 December 1998.

4 Prior to 10 December 2003, the consumer prices index (CPI) was published in the UK as the harmonised index of consumer prices (HICP).

5 The taxes excluded are council tax, VAT, duties, car purchase tax and vehicle excise duty, insurance tax and airport tax.

6 Pensioner price indices exclude housing costs, as these are often atypical for a pensioner household, based on RPI.

7 Movements in the purchasing power of the pound are based on movements in the retail prices index.

Sources: Office for National Statistics;
Enquiries Columns 1-2 01633 812106; Columns 3-13 020 7533 5853.

Prices

1987=100 Not seasonally adjusted
percentage change on year earlier

RPI all items excl
mortage interest
payments and
indirect taxes

RPI all items excl
mortage interest
payments

Consumer prices
index all items

Not seasonally adjusted
percentage change on year earlier

Producer prices
(Materials and fuel
purchased by
maunfactured
industry, 2000=100)
(Left Hand Scale)

Producer prices
(Home sales of
maunfactured
goods, 2000=100)
(Left Hand Scale)

Retail prices index
(All items 1987=100)
(Right Hand Scale)

4.1 Labour Market Activity[1,2]
United Kingdom

Thousands, seasonally adjusted[3]

	Employment categories					Unemployment	Total economically active	Economically inactive	Total aged 16 and over	Employment rate: age 16-59/64[4]
	Employees	Self-employed	Unpaid family workers	Government training and employment programmes	Total employment					
TOTAL										
	MGRN	MGRQ	MGRT	MGRW	MGRZ	MGSC	MGSF	MGSI	MGSL	MGSU
2003 Q1	24 452	3 435	83	94	28 065	1 524	29 588	17 358	46 946	74.6
Q2	24 456	3 555	88	93	28 191	1 463	29 654	17 366	47 020	74.8
Q3	24 360	3 647	108	107	28 222	1 499	29 721	17 377	47 098	74.6
Q4	24 388	3 659	99	108	28 254	1 458	29 712	17 470	47 183	74.6
2004 Q1	24 550	3 628	103	116	28 398	1 432	29 830	17 438	47 268	74.8
Q2	24 518	3 670	98	125	28 410	1 434	29 844	17 509	47 352	74.7
Q3	24 660	3 585	91	128	28 465	1 392	29 857	17 586	47 443	74.7
Q4	24 712	3 643	97	126	28 577	1 418	29 995	17 549	47 544	74.9
2005 Q1	24 806	3 627	104	126	28 663	1 408	30 071	17 574	47 646	74.9
Q2	24 841	3 618	100	116	28 675	1 434	30 109	17 638	47 747	74.7
Q3	24 942	3 656	93	107	28 798	1 433	30 231	17 615	47 846	74.9
Percentage change on quarter										
2005q2 to 2005q3	0.4	1.1	-7.5	-7.4	0.4	-0.1	0.4	-0.1	0.2	
Percentage change on year										
2004q3 to 2005q3	1.1	2.0	2.7	-16.4	1.2	2.9	1.3	0.2	0.8	
MALE										
	MGRO	MGRR	MGRU	MGRX	MGSA	MGSD	MGSG	MGSJ	MGSM	MGSV
2003 Q1	12 594	2 505	26	56	15 181	926	16 107	6 586	22 694	79.1
Q2	12 602	2 604	32	53	15 291	886	16 177	6 560	22 738	79.5
Q3	12 512	2 672	41	61	15 285	896	16 180	6 602	22 783	79.3
Q4	12 482	2 680	38	60	15 261	879	16 140	6 691	22 830	79.0
2004 Q1	12 581	2 657	42	68	15 348	841	16 190	6 688	22 878	79.4
Q2	12 544	2 695	41	73	15 353	841	16 195	6 731	22 926	79.2
Q3	12 628	2 653	35	75	15 391	815	16 206	6 769	22 976	79.3
Q4	12 646	2 685	37	75	15 443	834	16 277	6 754	23 031	79.3
2005 Q1	12 700	2 666	41	70	15 477	830	16 306	6 780	23 086	79.3
Q2	12 697	2 659	38	71	15 465	834	16 299	6 842	23 141	79.1
Q3	12 735	2 675	34	63	15 507	849	16 356	6 840	23 196	79.1
Percentage change on quarter										
2005q2 to 2005q3	0.3	0.6	-9.4	-11.3	0.3	1.8	0.3	0.0	0.2	
Percentage change on year										
2004q3 to 2005q3	0.8	0.8	-2.8	-15.4	0.8	4.2	0.9	1.0	1.0	
FEMALE										
	MGRP	MGRS	MGRV	MGRY	MGSB	MGSE	MGSH	MGSK	MGSN	MGSW
2003 Q1	11 858	930	57	38	12 883	598	13 481	10 771	24 252	69.7
Q2	11 853	951	56	40	12 900	578	13 477	10 805	24 283	69.7
Q3	11 848	975	67	46	12 937	603	13 541	10 775	24 315	69.7
Q4	11 906	979	61	47	12 993	579	13 572	10 780	24 352	69.8
2004 Q1	11 969	971	61	48	13 049	591	13 640	10 749	24 390	70.0
Q2	11 974	975	57	52	13 057	592	13 649	10 778	24 427	69.8
Q3	12 032	933	55	53	13 073	577	13 650	10 817	24 467	69.9
Q4	12 066	958	59	50	13 134	584	13 718	10 795	24 513	70.1
2005 Q1	12 106	962	63	55	13 186	578	13 765	10 795	24 559	70.1
Q2	12 144	959	63	44	13 210	600	13 810	10 796	24 606	70.1
Q3	12 207	981	59	44	13 291	584	13 875	10 775	24 650	70.4
Percentage change on quarter										
2005q2 to 2005q3	0.5	2.4	-6.3	-1.1	0.6	-2.7	0.5	-0.2	0.2	
Percentage change on year										
2004q3 to 2005q3	1.5	5.2	6.2	-17.8	1.7	1.2	1.6	-0.4	0.7	

1 The data in this table have been adjusted to reflect the latest revisions to mid-year population data.
2 Data are from the Labour Force Survey which uses the definitions recommended by the International Labour Organisation (ILO), an agency of the United Nations. For details see the *Guide to Labour Market Statistics Releases*.

3 Seasonally adjusted estimates are revised in September each year.
4 The employment rate equals those in employment aged 16-64 (male) and 16-59 (female), as a percentage of all in these age groups. The underlying data are available on request.

Source: Office for National Statistics; Enquiries 020 7533 6094

4.2 Labour Market Activity[1,2]
United Kingdom
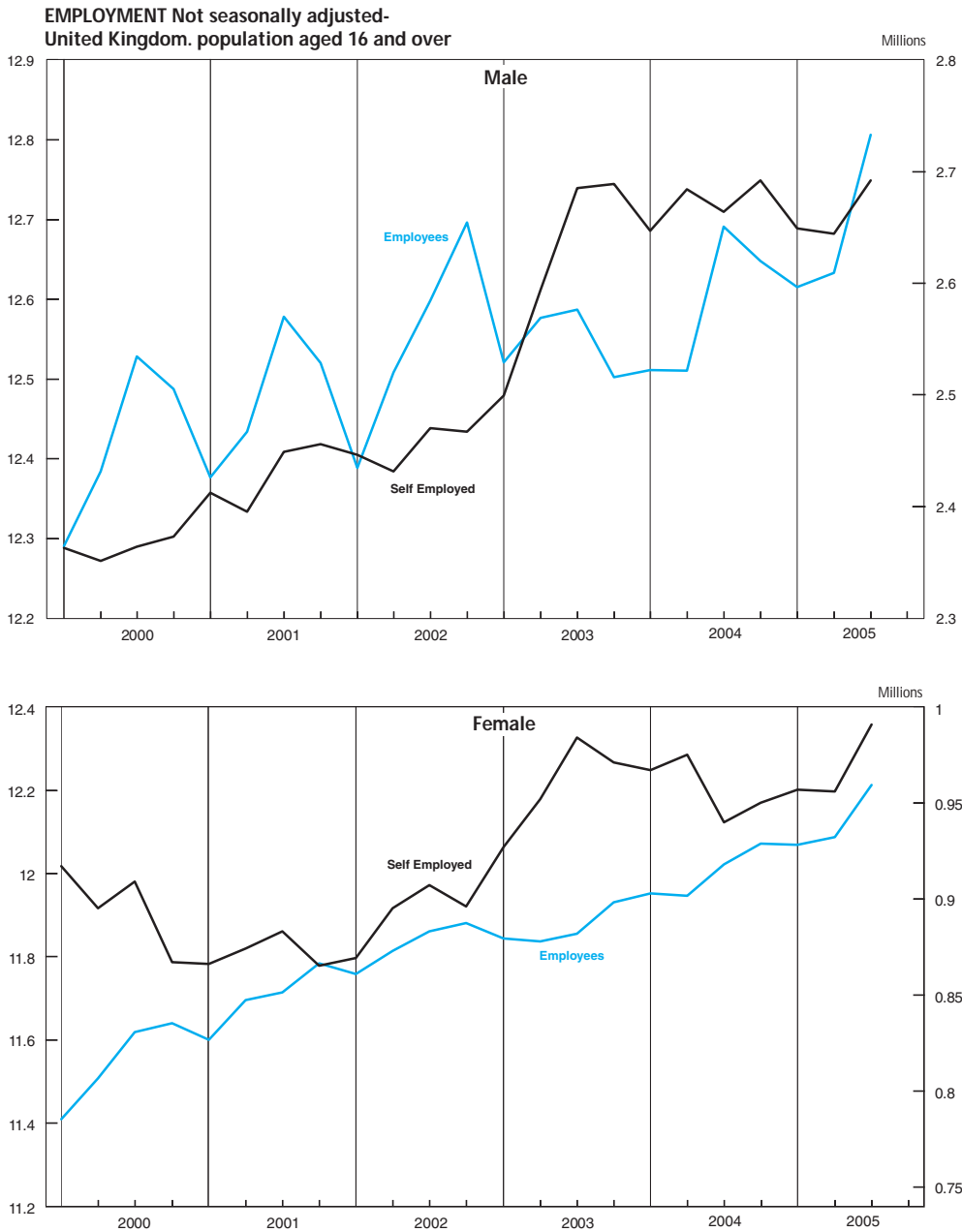
Thousands, not seasonally adjusted

		Employment categories				Unemployment	Total economically active	Economically inactive	Total aged 16 and over	Employment rate: age 16-59/64[3]
	Employees	Self-employed	Unpaid family workers	Government training and employment programmes	Total employment					
TOTAL										
	MGTA	MGTD	MGTG	MGTJ	MGTM	MGTP	MGTS	MGTV	MGSL	MGUH
2003 Q1	24 363	3 426	83	99	27 971	1 525	29 497	17 450	46 946	74.3
Q2	24 412	3 545	86	91	28 134	1 416	29 550	17 470	47 020	74.6
Q3	24 441	3 670	110	101	28 321	1 572	29 892	17 202	47 098	74.9
Q4	24 433	3 660	100	110	28 303	1 422	29 724	17 445	47 183	74.7
2004 Q1	24 463	3 615	104	121	28 302	1 429	29 731	17 513	47 268	74.6
Q2	24 454	3 659	96	121	28 330	1 387	29 717	17 601	47 352	74.5
Q3	24 713	3 603	91	123	28 530	1 463	29 993	17 399	47 443	75.0
Q4	24 719	3 642	97	127	28 586	1 378	29 963	17 502	47 544	75.0
2005 Q1	24 683	3 606	105	130	28 524	1 398	29 922	17 616	47 646	74.7
Q2	24 720	3 600	98	112	28 529	1 383	29 912	17 699	47 747	74.6
Q3	25 018	3 682	91	102	28 893	1 508	30 401	17 444	47 846	75.2
Percentage change on year										
2004q3 to 2005q3	*1.2*	*2.2*	*0.0*	*-17.1*	*1.3*	*3.1*	*1.4*	*0.3*	*0.8*	
MALE										
	MGTB	MGTE	MGTH	MGTK	MGTN	MGTQ	MGTT	MGTW	MGSM	MGUI
2003 Q1	12 521	2 499	27	59	15 107	938	16 045	6 649	22 694	78.7
Q2	12 576	2 594	31	52	15 253	864	16 116	6 621	22 738	79.3
Q3	12 587	2 685	41	58	15 371	921	16 292	6 489	22 783	79.8
Q4	12 502	2 689	38	62	15 291	855	16 146	6 679	22 830	79.2
2004 Q1	12 511	2 647	44	70	15 273	851	16 124	6 745	22 878	79.0
Q2	12 510	2 684	40	71	15 305	819	16 124	6 789	22 926	79.0
Q3	12 691	2 664	35	73	15 462	840	16 302	6 653	22 976	79.7
Q4	12 648	2 692	37	77	15 454	808	16 262	6 735	23 031	79.5
2005 Q1	12 615	2 649	43	72	15 379	835	16 213	6 824	23 086	79.0
Q2	12 633	2 644	36	69	15 383	808	16 191	6 888	23 141	78.9
Q3	12 806	2 692	33	61	15 591	877	16 468	6 727	23 196	79.5
Percentage change on year										
2004q3 to 2005q3	*0.9*	*1.1*	*-5.7*	*-16.4*	*0.8*	*4.4*	*1.0*	*1.1*	*1.0*	
FEMALE										
	MGTC	MGTF	MGTI	MGTL	MGTO	MGTR	MGTU	MGTX	MGSN	MGUJ
2003 Q1	11 843	927	55	40	12 865	587	13 452	10 801	24 252	69.6
Q2	11 836	952	55	39	12 881	552	13 434	10 849	24 283	69.6
Q3	11 854	984	69	43	12 950	650	13 600	10 713	24 315	69.7
Q4	11 930	971	62	48	13 011	567	13 578	10 766	24 352	70.0
2004 Q1	11 952	967	60	51	13 029	578	13 608	10 767	24 390	69.9
Q2	11 945	975	56	50	13 025	568	13 593	10 812	24 427	69.7
Q3	12 022	940	56	50	13 068	623	13 691	10 746	24 467	70.0
Q4	12 071	950	60	51	13 132	570	13 702	10 767	24 513	70.2
2005 Q1	12 068	957	62	58	13 146	563	13 709	10 792	24 559	70.1
Q2	12 086	956	62	42	13 147	575	13 721	10 811	24 606	70.0
Q3	12 212	991	59	41	13 302	631	13 933	10 717	24 650	70.5
Percentage change on year										
2004q3 to 2005q3	*1.6*	*5.4*	*5.4*	*-18.0*	*1.8*	*1.3*	*1.8*	*-0.3*	*0.7*	

1 The data in this table have been adjusted to reflect the latest revisions to mid-year population data.
2 Data are from the Labour Force Survey which uses the definitions recommended by the International Labour Organisation (ILO), an agency of the United Nations. For details see the *Guide to Labour Market Statistics Releases*.

3 The employment rate equals those in employment aged 16-64 (male) and 16-59 (female), as a percentage of all in these age groups. The underlying data are available on request.

Source: Office for National Statistics; Enquiries 020 7533 6094

**EMPLOYMENT Not seasonally adjusted-
United Kingdom. population aged 16 and over**

Millions

Male

Employees

Self Employed

Millions

Female

Self Employed

Employees

ECONOMICALLY ACTIVITY POPULATION (seasonally adjusted)

Quarter on previous quarter
percentage change

ECONOMIC ACTIVITY RATE (seasonally adjusted)

Quarter on previous quarter
percentage change

UNEMPLOYMENT (seasonally adjusted)

Quarter on previous quarter
percentage change

ECONOMICALLY INACTIVE POPULATION (seasonally ad*justed*)

Quarter on previous quarter
percentage change

EMPLOYEES *(seasonally adjusted)*

Quarter on previous quarter
percentage change

SELF-EMPLOYED *(seasonally adjusted)*

Quarter on previous quarter
percentage change

UNEMPLOYMENT RATE *(seasonally adjusted)*

Percentage

TOTAL EMPLOYMENT *(seasonally adjusted)*

Quarter on previous quarter
percentage change

4.3 Labour Market Activity by age[1,2]
United Kingdom

Thousands, seasonally adjusted[3]

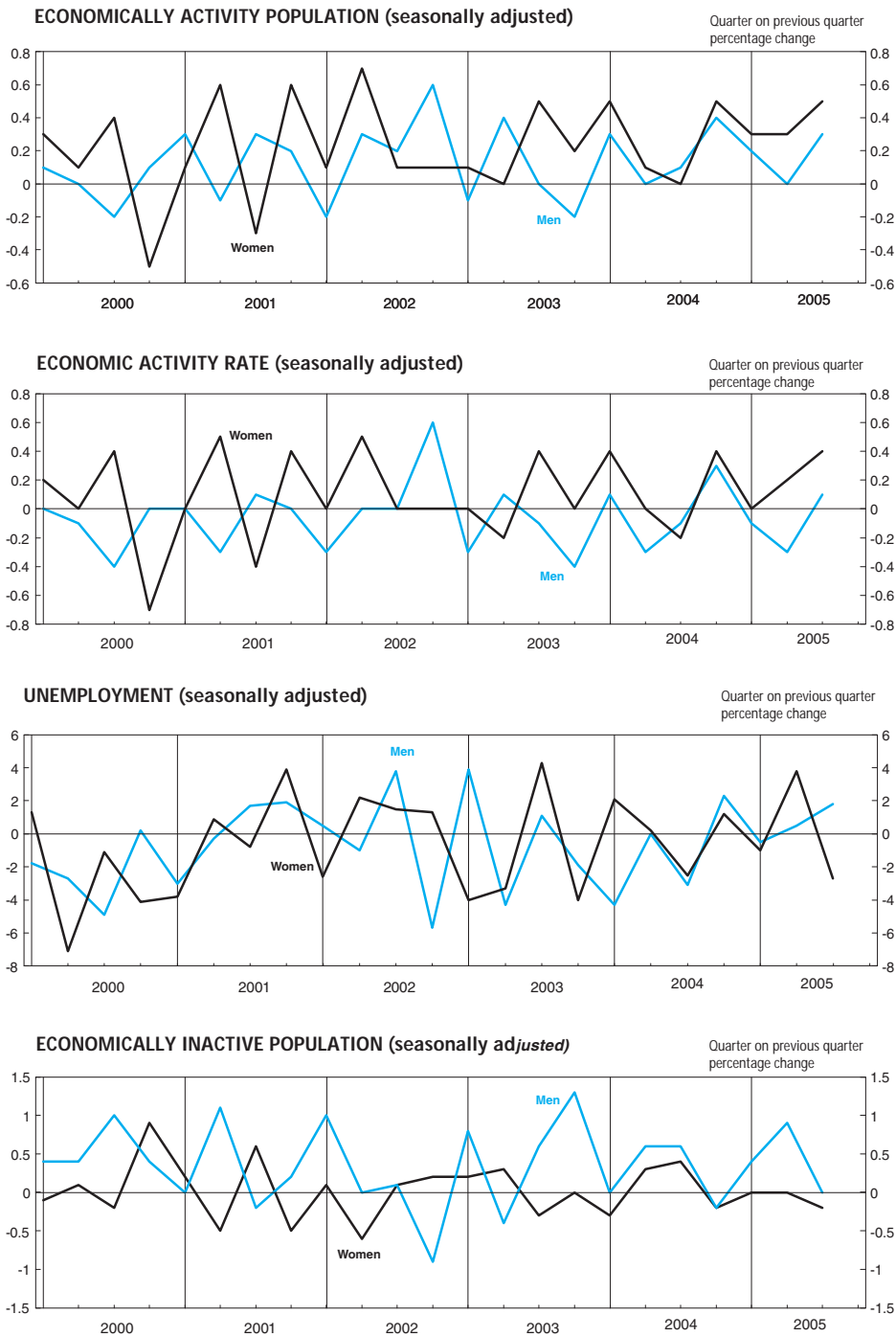| | Total aged 16 and over | | | Age groups[4] | | | | | | | |
| | | | | 16 - 24 | | 25 - 49 | | 50 - 59/64 | | 60/65 and over | |
	Total	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
In employment											
	MGRZ	MGSA	MGSB	MGUR	MGUS	MGUU	MGUV	MGUX	MGUY	MGVA	MGVB
2003 Q3	28 222	15 285	12 937	2 118	1 945	9 145	7 800	3 687	2 561	335	631
Q4	28 254	15 261	12 993	2 124	1 983	9 113	7 833	3 691	2 535	332	643
2004 Q1	28 398	15 348	13 049	2 151	2 011	9 149	7 828	3 714	2 558	334	651
Q2	28 410	15 353	13 057	2 166	1 978	9 127	7 856	3 721	2 554	340	669
Q3	28 465	15 391	13 073	2 157	1 987	9 159	7 871	3 736	2 561	338	653
Q4	28 577	15 443	13 134	2 157	1 993	9 182	7 886	3 759	2 589	345	666
2005 Q1	28 663	15 477	13 186	2 171	1 984	9 177	7 923	3 773	2 587	356	693
Q2	28 675	15 465	13 210	2 159	1 977	9 178	7 937	3 774	2 592	355	704
Q3	28 798	15 507	13 291	2 149	1 971	9 195	8 003	3 800	2 611	363	708
Unemployed											
	MGSC	MGSD	MGSE	MGVG	MGVH	MGVJ	MGVK	MGVM	MGVN	MGVP	MGVQ
2003 Q3	1 499	896	603	342	238	404	288	141	71	..	..
Q4	1 458	879	579	331	221	399	284	139	65	10	..
2004 Q1	1 432	841	591	329	233	370	285	133	64	10	..
Q2	1 434	841	592	328	246	368	281	136	56	..	..
Q3	1 392	815	577	342	248	331	262	133	59	..	..
Q4	1 418	834	584	350	248	342	269	131	60	11	..
2005 Q1	1 408	830	578	341	231	346	278	134	60	..	..
Q2	1 434	834	600	362	249	341	278	123	64	..	10
Q3	1 433	849	584	370	237	335	270	133	63	10	14
Economically inactive											
	MGSI	MGSJ	MGSK	MGVV	MGVW	MGVY	MGVZ	MGWB	MGWC	MGWE	MGWF
2003 Q3	17 377	6 602	10 775	905	1 124	792	2 471	1 316	1 171	3 589	6 009
Q4	17 470	6 691	10 780	932	1 119	832	2 446	1 325	1 206	3 602	6 008
2004 Q1	17 438	6 688	10 749	929	1 095	827	2 453	1 318	1 188	3 614	6 014
Q2	17 509	6 731	10 778	936	1 132	853	2 432	1 320	1 203	3 622	6 010
Q3	17 586	6 769	10 817	950	1 136	864	2 442	1 318	1 197	3 638	6 042
Q4	17 549	6 754	10 795	960	1 142	841	2 433	1 310	1 171	3 642	6 049
2005 Q1	17 574	6 780	10 795	972	1 180	855	2 399	1 306	1 176	3 647	6 039
Q2	17 638	6 842	10 796	981	1 182	870	2 398	1 327	1 169	3 664	6 047
Q3	17 615	6 840	10 775	998	1 211	870	2 352	1 305	1 154	3 666	6 058
Economic activity rate (per cent) [5]											
	MGWG	MGWH	MGWI	MGWK	MGWL	MGWN	MGWO	MGWQ	MGWR	MGWT	MGWU
2003 Q3	63.1	71.0	55.7	73.1	66.0	92.3	76.6	74.4	69.2	8.7	9.6
Q4	63.0	70.7	55.7	72.5	66.3	92.0	76.8	74.3	68.3	8.7	9.8
2004 Q1	63.1	70.8	55.9	72.7	67.2	92.0	76.8	74.5	68.8	8.7	9.9
Q2	63.0	70.6	55.9	72.7	66.3	91.8	77.0	74.5	68.4	8.8	10.1
Q3	62.9	70.5	55.8	72.5	66.3	91.7	76.9	74.6	68.6	8.7	9.9
Q4	63.1	70.7	56.0	72.3	66.2	91.9	77.0	74.8	69.3	8.9	10.0
2005 Q1	63.1	70.6	56.0	72.1	65.2	91.8	77.4	74.9	69.2	9.1	10.4
Q2	63.1	70.4	56.1	72.0	65.3	91.6	77.4	74.6	69.4	9.0	10.6
Q3	63.2	70.5	56.3	71.6	64.6	91.6	77.9	75.1	69.8	9.2	10.6
Unemployment rate (per cent) [6]											
	MGSX	MGSY	MGSZ	MGWZ	MGXA	MGXC	MGXD	MGXF	MGXG	MGXI	MGXJ
2003 Q3	5.0	5.5	4.5	13.9	10.9	4.2	3.6	3.7	2.7	..	..
Q4	4.9	5.4	4.3	13.5	10.0	4.2	3.5	3.6	2.5	3.0	..
2004 Q1	4.8	5.2	4.3	13.3	10.4	3.9	3.5	3.5	2.4	2.8	..
Q2	4.8	5.2	4.3	13.2	11.1	3.9	3.5	3.5	2.2	..	..
Q3	4.7	5.0	4.2	13.7	11.1	3.5	3.2	3.4	2.2	..	..
Q4	4.7	5.1	4.3	14.0	11.1	3.6	3.3	3.4	2.3	3.0	..
2005 Q1	4.7	5.1	4.2	13.6	10.4	3.6	3.4	3.4	2.3	..	..
Q2	4.8	5.1	4.3	14.4	11.2	3.6	3.4	3.2	2.4	..	1.3
Q3	4.7	5.2	4.2	14.7	10.7	3.5	3.3	3.4	2.4	2.7	1.9

1 The data in this table have been adjusted to reflect the latest revisions to mid-year population data.
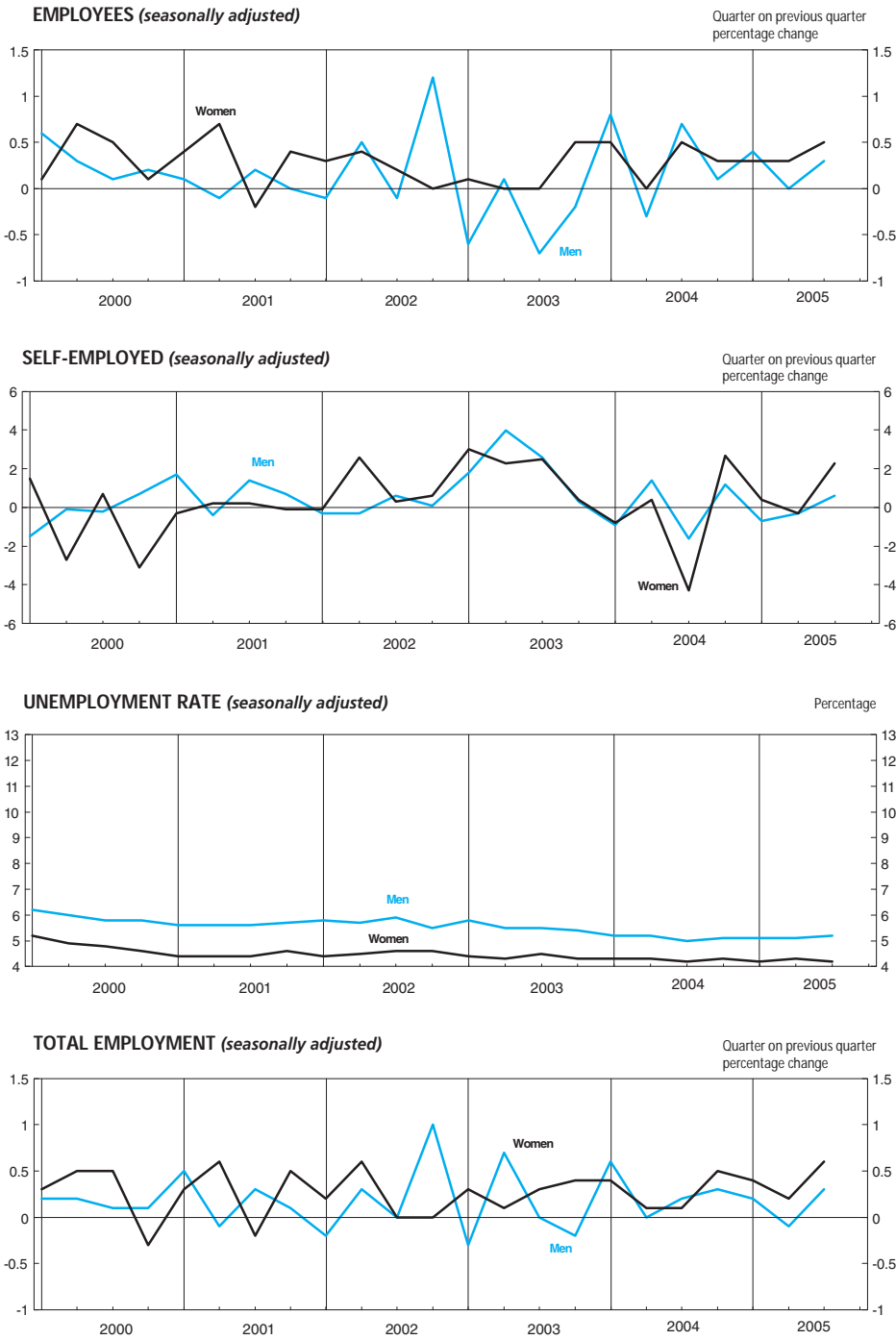2 Data are from the Labour Force Survey which uses the definitions recommended by the International Labour Organisation (ILO), an agency of the United Nations. For details see the *Guide to Labour Market Statistics Releases*.
3 Seasonally adjusted estimates are revised in September each year.
4 Data for more detailed age groups are published in *Labour Market Trends*.
5 The activity rate is the percentage of people in each age group who are economically active.
6 Unemployment rate is the percentage of economically active people who are unemployed on the ILO measure.

Source: Office for National Statistics; Enquiries 020 7533 6094

4.4 Jobs and claimant count
United Kingdom

Thousands

| | Jobs[1] | | | | | Claimant count[5,6,8] | | | Vacancies: average for three months ending in month shown[9] |
| | | Employee jobs[3,4] | | | | | | | |
	Workforce jobs[2,3,4]	All industries	Manufacturing industry	Production industry	Service industries	Total	Percentage of workforce jobs and claimant count[7]	Total Not seasonally adjusted	
	DYDC	BCAJ	YEJA	YEJF	YEID	BCJD	BCJE	BCJA	AP2Y
Annual									
2002	29 875	25 990	3 599	3 801	20 771	946.6	3.1	958.8	..
2003	30 213	26 105	3 415	3 602	21 064	933.3	3.0	945.9	..
2004	30 440	26 264	3 282	3 459	21 309	853.6	2.7	866.1	..
2005	30 590	26 450	3 184	3 361	21 548	..	..	..	..
Quarterly									
2002 Q1	29 845	26 024	3 648	3 854	20 719	952.5	3.1	1 014.6	..
Q2	29 875	25 990	3 599	3 801	20 771	950.6	3.1	958.1	..
Q3	29 911	25 989	3 552	3 747	20 840	946.5	3.1	951.8	..
Q4	29 991	26 046	3 512	3 701	20 934	937.0	3.0	910.6	..
2003 Q1	30 065	26 031	3 469	3 655	20 953	939.0	3.0	1 001.1	..
Q2	30 213	26 105	3 415	3 602	21 064	945.3	3.0	954.3	..
Q3	30 311	26 108	3 367	3 549	21 088	934.6	3.0	939.0	..
Q4	30 396	26 191	3 330	3 508	21 192	914.2	2.9	889.2	..
2004 Q1	30 412	26 219	3 301	3 478	21 239	885.8	2.8	947.2	..
Q2	30 440	26 264	3 282	3 459	21 309	861.3	2.8	871.8	..
Q3	30 405	26 268	3 257	3 434	21 334	836.3	2.7	839.0	..
Q4	30 547	26 384	3 241	3 418	21 411	831.1	2.7	806.7	..
2005 Q1	30 639	26 489	3 222	3 399	21 518	820.9	2.6	879.8	..
Q2	30 590	26 450	3 184	3 361	21 548	853.8	2.8	865.9	..
Q3	..	..	3 163	3 341	..	870.0[†]	2.8	874.4	..
Monthly									
2004 Jan	..	..	3 315	3 493	..	893.2	2.9	952.4	608.3
Feb	..	..	3 310	3 487	..	884.2	2.8	957.0	611.2
Mar	..	26 219	3 301	3 478	21 239	879.9	2.8	932.0	616.4
Apr	..	..	3 294	3 471	..	871.5	2.8	905.2	623.3
May	..	..	3 287	3 464	..	860.9	2.8	869.7	628.4
Jun	..	26 264	3 282	3 459	21 309	851.5	2.7	840.5	632.6
Jul	..	..	3 274	3 451	..	838.2	2.7	841.5	646.5
Aug	..	..	3 264	3 442	..	834.8	2.7	847.6	647.2
Sep	..	26 268	3 257	3 434	21 334	836.0	2.7	827.8	643.2
Oct	..	..	3 249	3 425	..	836.4	2.7	806.8	638.4[†]
Nov	..	..	3 241	3 418	..	831.9	2.7	803.0	640.7
Dec	..	26 384	3 241	3 418	21 406	825.0	2.6	810.2	648.0
2005 Jan	..	..	3 238	3 415	..	813.8	2.6	872.1	655.0
Feb	..	..	3 229	3 405	..	817.7	2.6	885.0	647.4
Mar	..	26 489	3 222	3 399	21 518	831.3	2.7	882.3	636.9
Apr	..	..	3 214	3 390	..	842.1	2.7	871.8	632.9
May	..	..	3 197	3 373	..	856.1	2.7	867.6	639.1
Jun	..	26 450	3 184	3 361	21 548	863.2	2.8	858.2	640.9
Jul	..	..	3 175	3 352	..	864.6	2.8	871.0	635.8
Aug	..	..	3 166	3 343	..	867.3	2.8	880.7	628.7
Sep	..	..	3 163	3 341	..	878.0[†]	2.8	871.5	621.8
Oct	..	..	..	..	..	890.1	2.8	864.8	605.1

1 Estimates of employee jobs and workforce jobs for Great Britain now use the Annual Business Inquiry as a benchmark on which quarterly movements are based. For further information see Labour Market Statistics First Release, April 2001 which is held on the National Statistics website **www.statistics.gov.uk** The Northern Ireland component of workforce jobs and employee jobs has not changed.

2 Workforce jobs comprise employee jobs, self-employed jobs, HM Forces and participants in work-related government supported training, which includes the Project Work Plan.

3 For all dates, individuals with two jobs as employees of different employers are counted twice.

4 Annual estimates relate to mid-year. Figures for the four quarters relate to March, June, September and December. For claimant count, unlike employment and workforce figures, the annual figure is an annual average.

5 Unadjusted claimant count figures have been affected by changes in the coverage. The seasonally adjusted figures however, as given in this table are estimated on the current basis, allowing for the discontinuities, except for the effect of the Jobseeker's Allowance introduced in October 1996 (see also below).

The seasonally adjusted figures now relate only to claimants aged 18 or over in order to maintain the consistent series, available back to 1971 (1974 for the regions), allowing for the effect of the change in benefit regulations for under 18 year olds from September 1988. (See pages 398-400 of November 1995 *Labour Market Trends*.)

6 Claimant count figures do not include students claiming benefit during a vacation who intend to return to full-time education.

7 The denominator used to calculate claimant count unemployment rates is comprised of the workforce jobs plus the claimant count.

8 Quarterly and annual values are now the mean of the monthly and quarterly data respectively.

9 The ONS Vacancy Survey, a monthly business survey of the number of job vacancies held by employers across the UK economy, has been running since April 2001. The results were adopted as National Statistics in June 2003.

Sources: Office for National Statistics;
Enquiries Columns 1-5 01633 812079; Columns 6-9 020 7533 6094;
also 24 hour recorded headline service on 020 7533 6176

Employee jobs and claimant count (UK)

Percentage change
on previous quarter

Total employment and unemployed (UK)

Percentage change
on previous quarter

4.5 Regional claimant count rates[1,2]
by Government Office Region

Percentages

Quarterly	North East	North West[3]	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East
	DPDM	IBWC	DPBI	DPBJ	DPBN	DPDP	DPDQ	DPDR
2000 Q1	6.6	4.4	4.6	3.5	4.1	2.6	4.0	2.0
Q2	6.4	4.2	4.4	3.4	4.0	2.4	3.8	1.9
Q3	6.2	4.0	4.2	3.3	4.0	2.3	3.6	1.8
Q4	6.0	3.9	4.1	3.3	3.9	2.2	3.5	1.7
2001 Q1	5.9	3.8	4.1	3.2	3.9	2.1	3.3	1.6
Q2	5.6	3.7	4.0	3.1	3.8	2.0	3.2	1.5
Q3	5.5	3.6	3.9	3.0	3.6	2.0	3.2	1.5
Q4	5.5	3.6	3.8	3.0	3.6	2.0	3.5	1.6
2002 Q1	5.3	3.5	3.7	2.9	3.5	2.0	3.5	1.6
Q2	5.2	3.5	3.6	2.8	3.5	2.1	3.6	1.6
Q3	5.1	3.5	3.6	2.8	3.5	2.1	3.6	1.7
Q4	4.8	3.4	3.6	2.8	3.5	2.1	3.6	1.7
2003 Q1	4.7	3.3	3.4	2.8	3.5	2.1	3.6	1.7
Q2	4.6	3.3	3.4	2.9	3.5	2.1	3.7	1.7
Q3	4.5	3.2	3.3	2.9	3.5	2.1	3.7	1.7
Q4	4.4	3.1	3.2	2.8	3.5	2.1	3.6	1.7
2004 Q1	4.2	3.0	3.0	2.7	3.4	2.0	3.6	1.7
Q2	4.1	2.9	2.9	2.5	3.3	2.0	3.5	1.6
Q3	3.9	2.8	2.8	2.5	3.2	1.9	3.4	1.6
Q4	3.9	2.8	2.8	2.5	3.2	1.9	3.4	1.6
2005 Q1	3.8	2.7	2.8	2.4	3.1	1.9	3.4	1.6
Q2	3.9	2.9	3.0	2.6	3.5	2.1	3.4	1.6
Q3	4.1	3.0	3.1[†]	2.7[†]	3.6	2.1	3.5	1.7

Quarterly	South West	England	Wales	Scotland	Great Britain	Northern Ireland	United Kingdom
	DPBM	VASQ	DPBP	DPBQ	DPAJ	DPBR	BCJE
2000 Q1	2.7	3.6	4.5	4.8	3.7	5.5	3.8
Q2	2.5	3.4	4.4	4.6	3.6	5.3	3.6
Q3	2.4	3.3	4.3	4.4	3.4	5.1	3.5
Q4	2.3	3.2	4.3	4.3	3.4	5.2	3.4
2001 Q1	2.1	3.1	4.2	4.1	3.2	5.0	3.3
Q2	2.1	3.0	4.0	4.0	3.1	4.9	3.2
Q3	2.0	2.9	3.8	3.9	3.1	4.8	3.1
Q4	2.0	3.0	3.8	4.0	3.1	4.7	3.1
2002 Q1	2.0	2.9	3.6	3.9	3.1	4.6	3.1
Q2	2.0	2.9	3.6	3.9	3.0	4.5	3.1
Q3	1.9	2.9	3.6	3.9	3.0	4.3	3.1
Q4	1.9	2.9	3.5	3.8	3.0	4.3	3.0
2003 Q1	1.9	2.9	3.4	3.8	3.0	4.2	3.0
Q2	1.9	2.9	3.4	3.8	3.0	4.2	3.0
Q3	1.9	2.9	3.3	3.8	3.0	4.2	3.0
Q4	1.8	2.8	3.2	3.7	2.9	4.1	2.9
2004 Q1	1.7	2.7	3.1	3.6	2.8	3.9	2.8
Q2	1.6	2.6	3.1	3.5	2.7	3.7	2.8
Q3	1.5	2.6	3.0	3.4	2.7	3.5	2.7
Q4	1.5	2.5	3.0	3.4	2.6	3.5	2.7
2005 Q1	1.5	2.5	2.9	3.3	2.6	3.4	2.6
Q2	1.6	2.7	3.1	3.3	2.7	3.5	2.8
Q3	1.6	2.7	3.2[†]	3.2	2.8	3.3	2.8

Note: Quarterly claimant count figures relate to the average of the three months in each quarter.

1 Government Office Regions came into effect in April 1994. It was decided that from May 1997 sub-national data should be published for these areas rather than standard statistical regions (SSRs). Data by standard statistical regions are available on request.

2 The seasonally adjusted figures now relate only to claimants aged 18 or over in order to maintain the consistent series, available back to 1971 for Great Britain, Northern Ireland and the United Kingdom (1974 for Wales and Scotland; 1986 for the Government Office Regions), allowing for

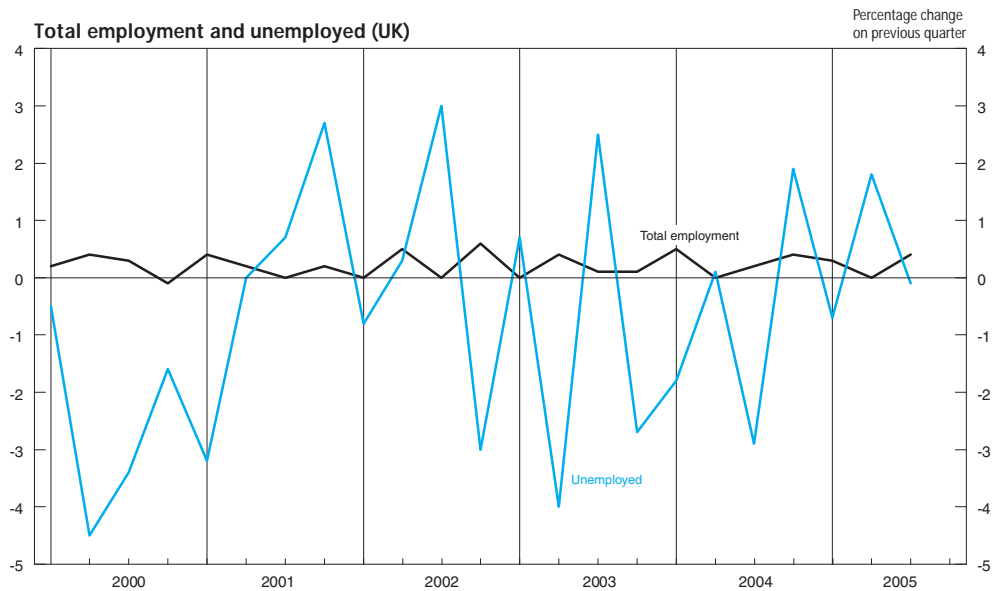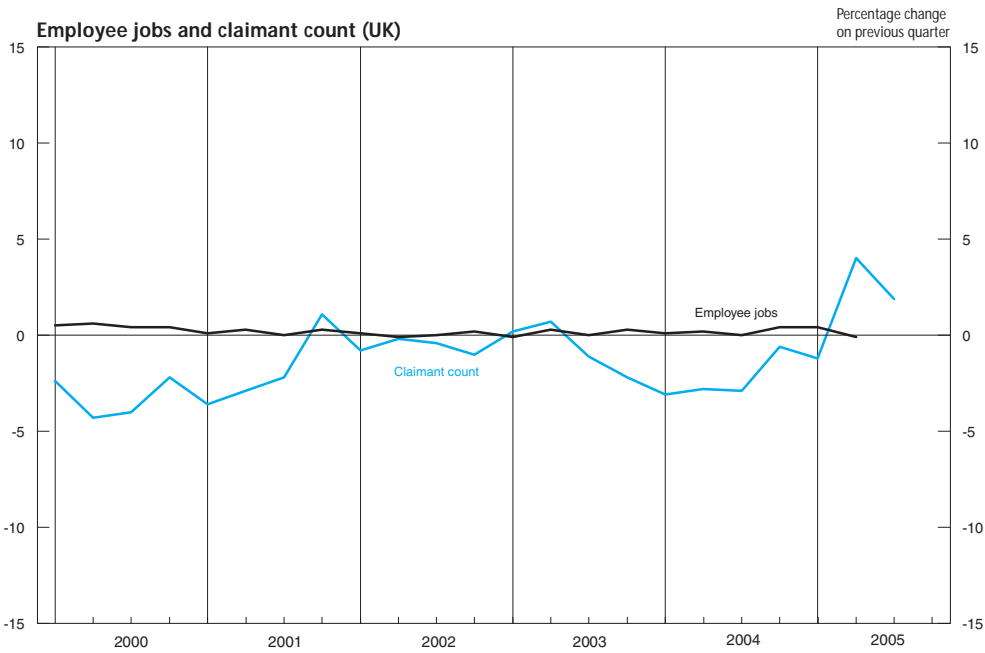the effect of the change in benefit regulations for under 18 year olds from September 1988. (See pages 398-400 of the November 1995 *Labour Market Trends*.) The denominators used to calculate claimant count rates are the sum of the appropriate mid-year estimates of employee jobs, the self-employed, Government-supported trainees, HM Forces and claimants of unemployment-related benefits.

3 Includes Merseyside.

Source: Office for National Statistics; Enquiries 020 7533 6094

Regional claimant unemployment
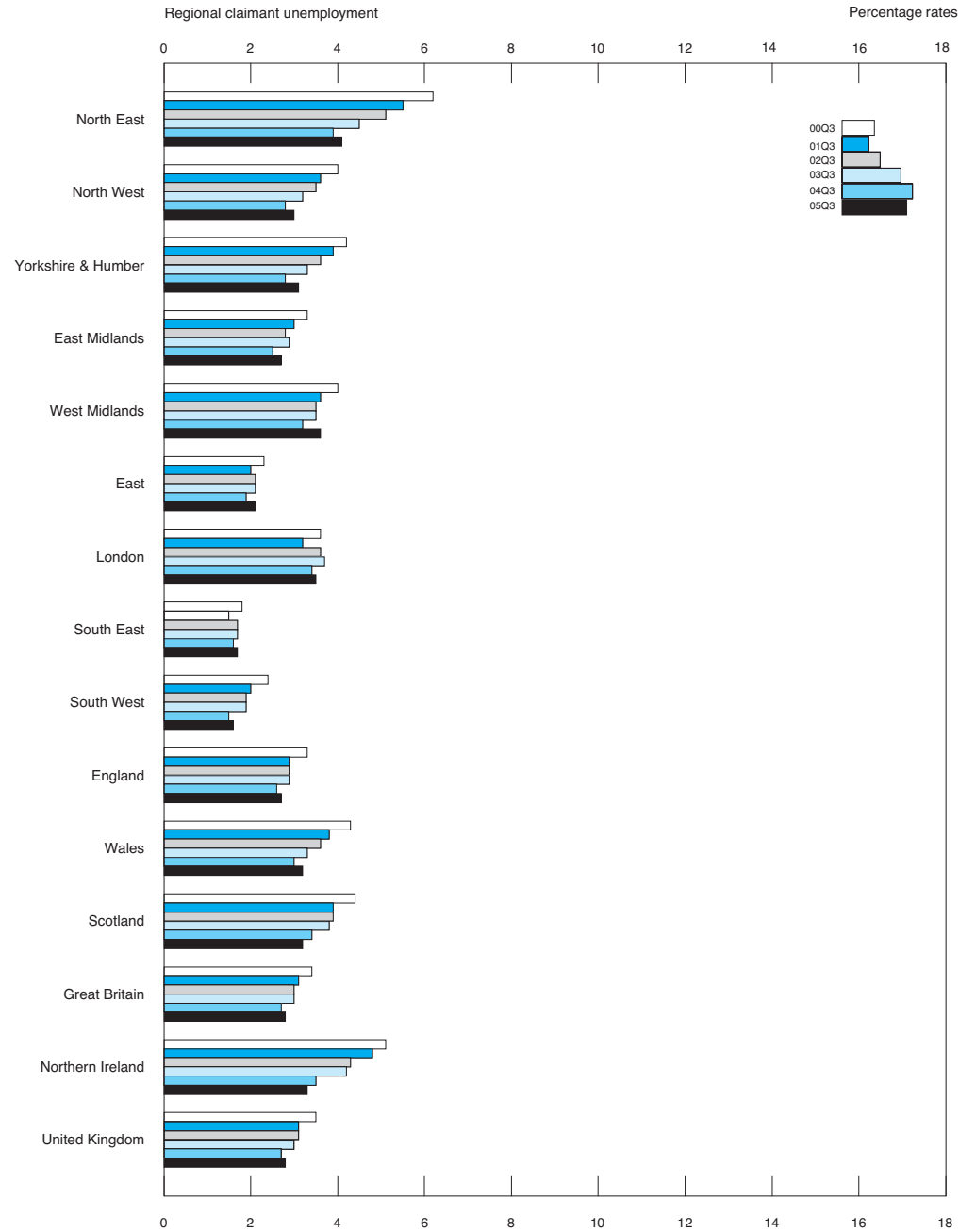
Percentage rates

4.5A Unemployment rates[1,2]
by Government Office Region

Percentages, seasonally adjusted [4]

Quarterly	North East	North West[3]	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East
	YCNC	YCND	YCNE	YCNF	YCNG	YCNH	YCNI	YCNJ
2000 Q1	8.8	6.0	6.4	5.1	6.1	3.9	7.6	3.5
Q2	8.9	5.3	6.1	4.8	6.1	3.7	7.4	3.3
Q3	8.9	5.4	5.9	4.8	5.7	3.7	6.9	3.1
Q4	7.7	5.3	6.1	4.7	6.0	3.6	6.8	3.4
2001 Q1	7.6	5.2	5.4	4.7	5.6	3.5	6.5	3.4
Q2	7.4	5.3	5.5	5.0	5.5	3.6	6.2	3.2
Q3	7.1	5.1	5.3	4.6	5.4	4.0	6.6	3.4
Q4	7.2	5.4	5.1	4.5	5.5	3.9	7.4	3.4
2002 Q1	7.3	5.4	5.1	4.7	5.6	3.7	6.9	3.6
Q2	6.5	5.5	5.3	4.6	5.7	3.7	6.8	3.8
Q3	6.2	5.5	5.6	4.7	5.9	3.9	7.1	4.0
Q4	7.3	4.9	5.0	4.8	5.7	4.0	6.6	4.0
2003 Q1	6.6	4.9	5.3	4.0	6.0	4.7	7.0	3.9
Q2	6.1	5.0	5.1	4.4	5.6	3.9	7.2	3.9
Q3	6.6	4.9	4.9	4.6	5.9	3.9	7.2	3.9
Q4	6.3	4.7	5.0	4.4	5.7	3.5	7.0	3.9
2004 Q1	5.6	4.5	4.8	4.7	5.5	3.5	7.0	3.9
Q2	5.5	4.4	4.5	4.3	5.5	3.8	7.0	3.6
Q3	6.0	4.4	4.6	4.0	5.0	3.5	7.2	3.7
Q4	6.4	4.6	4.7	4.2	4.8	3.8	7.2	3.5
2005 Q1	5.7	4.8	4.3	4.3	4.7	3.9	6.7	3.7
Q2	6.8	4.4	4.7	4.4	4.6	3.9	7.1	3.8
Q3	6.6	4.5	4.6	4.4	4.7	4.0	6.7	4.0

| Quarterly	South West	England	Wales	Scotland	Great Britain	Northern Ireland	United Kingdom
	YCNK	YCNL	YCNM	YCNN	YCNO	ZSFB	MGSX
2000 Q1	4.3	5.5	6.7	7.5	5.8	6.5	5.8
Q2	4.3	5.3	6.1	7.1	5.5	6.7	5.5
Q3	4.0	5.1	6.7	6.6	5.3	5.6	5.3
Q4	3.9	5.1	5.8	6.2	5.2	6.1	5.2
2001 Q1	3.9	4.9	6.0	5.9	5.0	6.2	5.1
Q2	3.6	4.8	6.1	6.3	5.0	6.1	5.0
Q3	3.6	4.9	5.5	6.6	5.1	6.0	5.1
Q4	3.6	5.0	5.8	6.7	5.2	5.9	5.2
2002 Q1	3.5	5.0	5.7	6.6	5.1	6.1	5.2
Q2	3.7	5.0	5.7	6.3	5.1	5.6	5.2
Q3	4.0	5.2	5.2	6.4	5.3	6.1	5.3
Q4	4.0	5.0	5.1	6.1	5.1	5.5	5.1
2003 Q1	3.8	5.1	4.8	6.0	5.1	5.3	5.1
Q2	3.4	4.9	4.5	5.3	4.9	5.2	4.9
Q3	3.2	5.0	4.7	5.9	5.0	5.6	5.0
Q4	3.1	4.8	4.8	5.8	4.9	6.3	4.9
2004 Q1	3.0	4.7	4.6	5.8	4.8	5.3	4.8
Q2	3.7	4.7	4.2	6.0	4.8	5.2	4.8
Q3	3.2	4.6	4.9	5.2	4.7	5.0	4.7
Q4	3.4	4.7	4.2	5.6	4.7	4.6	4.7
2005 Q1	3.6	4.6	4.5	5.6	4.7	4.8	4.7
Q2	3.2	4.7	4.6	5.5	4.8	5.0	4.8
Q3	3.6	4.7	4.6	5.4	4.8	4.3	4.7

1 The data in this table have been adjusted to reflect the latest revisions to mid-year population data.
2 Data are from the Labour Force Survey. Unemployment rate is the percentage of economically active people who are unemployed on the ILO measure.

3 Includes Merseyside.
4 Seasonally adjusted estimates are revised in September each year.
Source: Office for National Statistics; Enquiries 020 7533 6094

Unemployment rates   Percentage rates
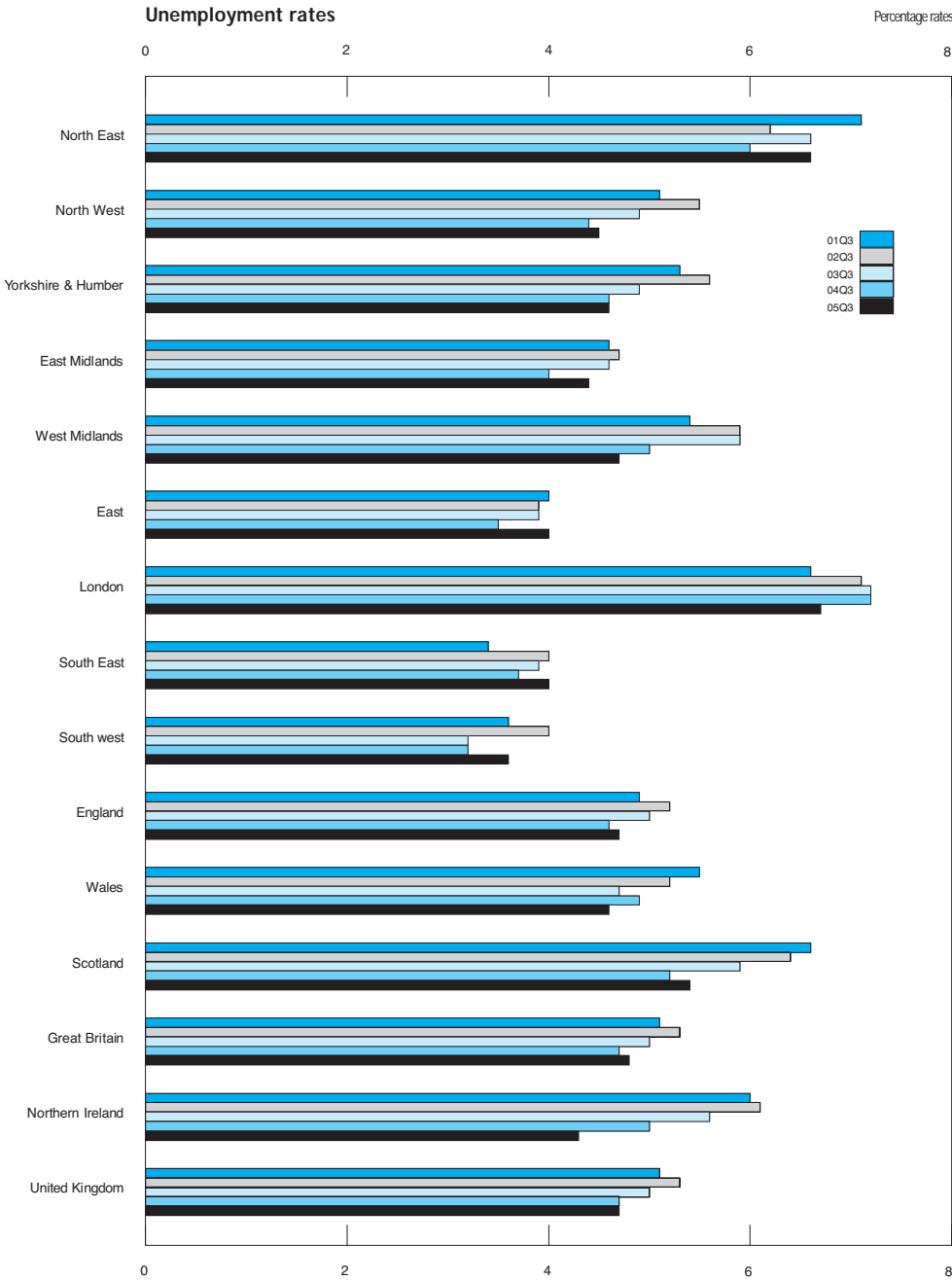
4.6 Average earnings (including bonuses)
Great Britain

2000 = 100

|	Whole economy+	3 month average[2]	Private sector	3 month average[2]	Public sector	3 month average[2]	Manufact-uring industri-es[3]	3 month average[2,3]	Product-ion industri-es	3 month average[2]	Service industri-es	3 month average[2]	Private sector services	3 month average[2]
Annual														
	LNMQ		LNKY		LNNJ		LNMR		LNMS		LNMT		JJGH	
2001	104.5		104.3		105.0		104.3		104.2		104.4		104.2	
2002	108.2		107.9		109.3		108.0		107.9		108.1		107.8	
2003	111.9		111.3		114.8		111.9		111.7		112.0		110.9	
2004	116.7		116.0		119.8		116.0		115.8		116.7		115.7	
Monthly														
		LNNC		LNND		LNNE		LNNG		LNNF		LNNH		JJGJ
2001 Jan	103.1	4.5	103.3	4.7	102.3	3.9	102.9	4.6	103.0	4.3	103.3	4.5	103.4	4.7
Feb	103.6	4.7	103.7	4.8	102.7	3.6	103.4	4.8	103.7	4.6	103.7	4.7	103.8	4.9
Mar	103.6	4.7	103.5	4.7	103.3	3.7	102.5	4.5	102.6	4.5	103.7	4.7	103.7	4.7
Apr	103.9	5.0	103.8	5.0	104.6	4.3	104.1	5.0	103.9	4.9	103.8	5.0	103.6	5.0
May	104.0	5.1	103.8	5.1	104.9	5.2	104.1	4.7	103.9	4.7	103.9	5.1	103.6	5.1
Jun	104.3	5.3	104.1	5.3	105.2	5.5	104.3	5.0	104.2	4.9	104.2	5.3	103.9	5.3
Jul	104.4	5.2	104.2	5.1	105.6	5.6	104.5	4.8	104.3	4.6	104.3	5.2	103.9	5.1
Aug	104.9	4.9	104.7	4.8	105.9	5.6	105.3	4.8	104.7	4.6	104.9	4.9	104.5	4.7
Sep	105.1	4.6	104.9	4.4	105.9	5.7	105.3	4.6	105.1	4.4	105.0	4.6	104.7	4.2
Oct	105.3	4.3	105.0	4.0	106.5	5.6	105.4	4.4	105.2	4.3	105.2	4.2	104.8	3.8
Nov	105.6	3.9	105.4	3.7	106.5	5.4	105.3	3.8	105.1	3.7	105.5	3.9	105.2	3.5
Dec	105.8	3.3	105.5	2.9	106.9	5.2	105.5	3.3	105.3	3.2	105.7	3.2	105.5	2.7
2002 Jan	106.0	2.9	105.9	2.5	107.1	4.9	106.1	3.0	106.2	2.9	106.0	2.8	105.5	2.2
Feb	106.8	2.7	106.6	2.3	107.3	4.8	106.1	2.8	105.9	2.6	106.9	2.7	106.7	2.1
Mar	106.4	2.8	105.9	2.6	107.9	4.6	105.8	3.0	106.2	2.9	106.2	2.7	105.7	2.2
Apr	107.9	3.2	108.0	3.1	108.3	4.1	107.0	2.9	106.8	2.8	107.9	3.2	107.8	2.9
May	108.0	3.5	107.8	3.4	108.6	3.8	107.7	3.2	107.5	3.2	108.0	3.4	107.8	3.3
Jun	108.2	3.8	108.1	3.9	108.9	3.5	108.2	3.3	108.0	3.3	108.2	3.9	108.1	4.0
Jul	108.5	3.8	108.3	3.9	109.7	3.6	108.4	3.6	108.2	3.6	108.6	3.9	108.1	4.0
Aug	108.7	3.8	108.6	3.8	109.0	3.4	108.9	3.7	108.8	3.8	108.6	3.8	108.4	3.9
Sep	109.0	3.8	108.8	3.8	110.0	3.6	108.9	3.7	108.9	3.8	108.9	3.8	108.6	3.8
Oct	109.3	3.7	109.0	3.8	110.9	3.7	109.5	3.8	109.4	3.9	109.2	3.7	108.7	3.7
Nov	110.1	4.0	109.7	3.9	111.7	4.3	109.7	3.9	109.6	4.0	110.2	4.0	109.7	3.9
Dec	109.5	3.9	108.6	3.6	112.2	4.7	110.0	4.1	109.9	4.2	108.9	3.8	108.1	3.5
2003 Jan	109.0	3.5	108.6	3.2	112.6	5.0	110.2	4.1	110.2	4.1	108.9	3.4	107.4	2.9
Feb	109.8	3.0	109.0	2.6	112.9	5.1	110.6	4.1	110.3	4.1	109.5	2.7	108.3	1.9
Mar	110.9	3.3	110.1	2.9	113.3	5.1	111.8	4.6	112.0	4.5	110.4	3.0	109.2	2.2
Apr	110.7	3.2	110.0	2.7	113.9	5.1	110.3	4.4	110.2	4.3	110.8	3.0	109.7	2.2
May	111.4	3.3	110.9	2.9	113.6	4.9	111.1	4.0	110.9	4.0	111.6	3.3	111.0	2.7
Jun	111.7	3.0	111.1	2.5	114.7	5.0	111.4	3.1	111.3	3.2	111.9	3.1	110.9	2.5
Jul	112.6	3.4	111.9	3.0	115.6	5.1	111.8	3.1	111.7	3.1	113.0	3.6	111.9	3.0
Aug	112.6	3.5	111.9	3.0	115.5	5.6	112.2	3.0	112.0	3.1	112.8	3.8	111.8	3.1
Sep	113.2	3.7	112.5	3.3	116.0	5.6	112.8	3.2	112.6	3.2	113.2	4.0	112.3	3.4
Oct	113.4	3.7	112.8	3.3	116.1	5.4	113.0	3.3	112.9	3.2	113.4	3.9	112.5	3.4
Nov	113.7	3.6	113.1	3.3	116.4	4.8	113.7	3.5	113.5	3.4	113.7	3.7	112.8	3.3
Dec	114.3	3.8	113.9	3.9	117.0	4.4	113.6	3.4	113.4	3.3	114.5	4.1	113.4	3.7
2004 Jan	115.6	4.6	115.0	4.6	117.2	4.2	114.3	3.5	114.1	3.4	115.7	4.8	115.4	5.0
Feb	113.8	4.7	113.0	4.8	117.8	4.3	114.5	3.5	114.4	3.5	113.4	5.0	111.9	5.2
Mar	115.7	4.7	114.9	4.6	118.3	4.3	115.5	3.5	115.4	3.4	115.7	4.8	114.6	5.2
Apr	115.7	4.2	115.1	4.2	118.5	4.3	115.4	3.8	115.3	3.8	115.6	4.2	114.6	4.2
May	116.1	4.4	115.5	4.4	118.7	4.3	116.0	4.1	115.7	4.0	115.8	4.3	115.0	4.3
Jun	116.4	4.3	115.7	4.3	119.9	4.4	116.0	4.4	115.8	4.3	116.4	4.1	115.3	4.0
Jul	116.4	3.9	115.5	3.8	119.9	4.2	116.1[†]	4.1	115.9[†]	4.0	116.2[†]	3.6	114.8[†]	3.4
Aug	117.3[†]	3.9	116.5[†]	3.8	120.7	4.2	115.9	3.8[†]	115.8	3.7	117.3	3.6[†]	116.2	3.5
Sep	117.8	3.8	117.0	3.8[†]	121.2	4.2	116.2	3.4	116.1	3.4	118.0	3.7	117.0	3.5
Oct	118.3	4.2[†]	117.6	4.1	121.7	4.6	116.9	3.3	116.7	3.2[†]	118.5	4.2	117.4	4.1
Nov	118.8	4.3[†]	118.1	4.2	121.9	4.7	117.0	3.1	116.9	3.1	118.9	4.4	117.9	4.3
Dec	119.1	4.3	118.5	4.2	122.2	4.7	117.8	3.3	117.6	3.4	119.3	4.4	118.3	4.4
2005 Jan	120.1	4.2	119.4	4.1	122.7	4.6	117.8	3.2	117.7	3.3	120.2	4.3	119.6	4.1
Feb	120.2	4.6	119.6	4.6	123.3	4.6	118.6	3.5	118.5	3.5	120.5	4.8	119.5	4.9
Mar	120.3	4.5	119.5	4.6	123.3	4.5	120.0	3.5	119.6	3.5	120.7	4.8	119.5	4.9
Apr	120.6	4.6	119.7	4.6	124.3	4.6	118.9	3.5	118.7	3.4	120.8	5.0	119.6	5.1
May	120.8	4.1	119.3	3.8	127.8	5.6	118.2	3.0	118.1	2.9	121.2	4.5	119.4	4.1
Jun	121.1	4.1	120.2	3.7	125.0	5.6	119.3	2.6	119.0	2.6	121.4	4.5	120.1	4.1
Jul	121.6	4.2	120.7	3.9	125.2	5.5	120.1	2.8	119.8	2.7	121.8	4.6	120.6	4.4
Aug	122.0	4.2	121.1	4.1	125.8[†]	4.3	120.9	3.5	120.6	3.5	122.0	4.4	120.9	4.4
Sep[1]	122.1	4.1	121.3	4.0	126.0	4.2	121.6	4.1	121.3	4.0	122.0	4.1	120.8	4.1

1 Provisional.
2 The 3 month average is the change in the average seasonally adjusted in-dex values for the last 3 months compared with the same period a year ago.
3 ONS regrets that the series have been withdrawn for the period 1963-1982, owing to an irregularity.

Source: Office for National Statistics; Enquiries 01633 816024

Earnings, wages, retail prices and output
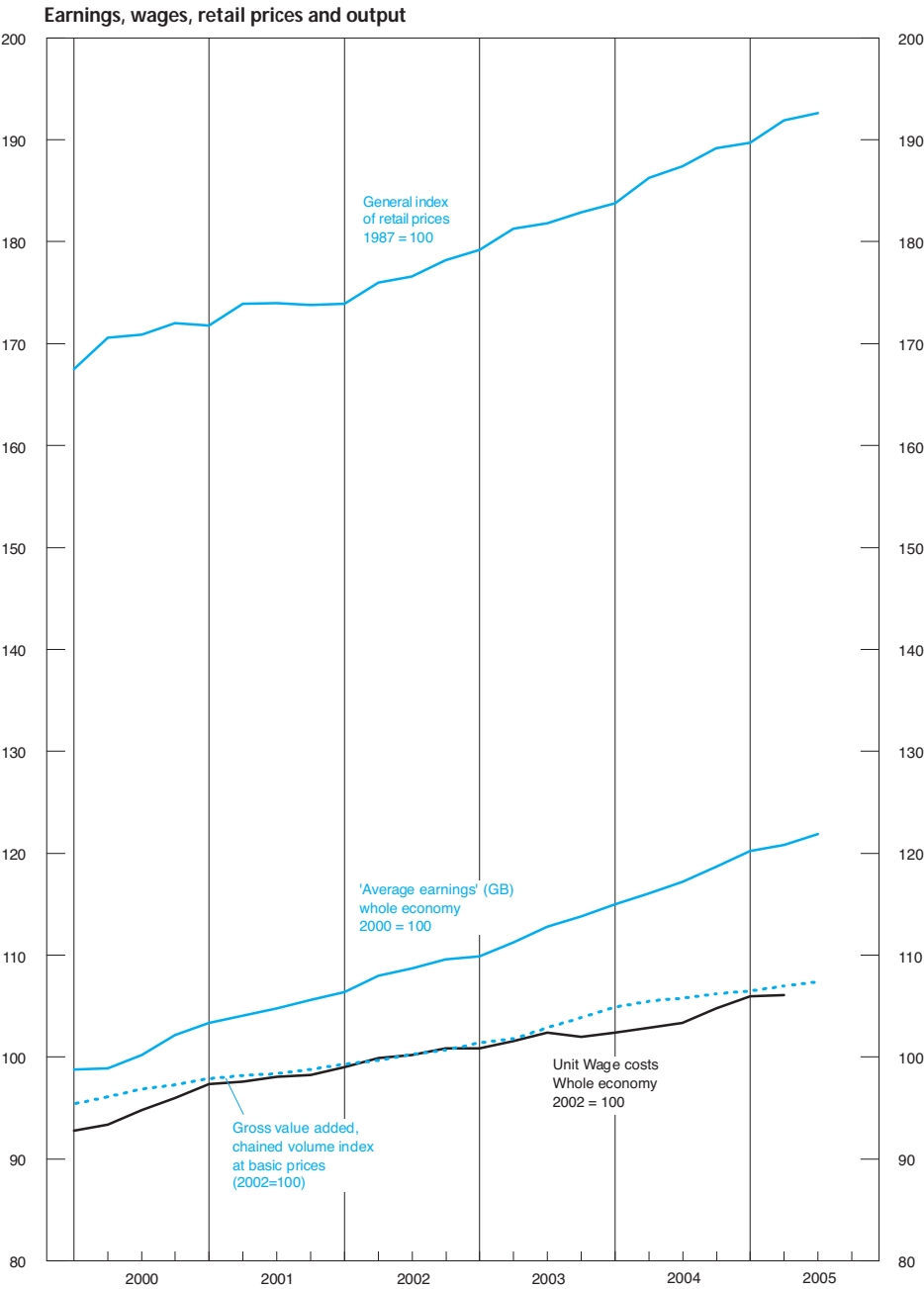
4.7 Productivity and Unit Wage costs[1]
United Kingdom

2002 = 100

	Productivity jobs			Output per worker[2]	Output per filled job[3]			Output per hour worked[4]			Unit wage costs[5]	
	Whole economy	Total production industries	Manufact-uring industries	Whole economy	Whole economy	Total production industries	Manufact-uring industries	Whole economy	Total production industries	Manufact-uring industries	Whole economy	Manufact-uring industries
Annual												
	LNNM	LNOJ	LNOK	A4YM	LNNN	LNNW	LNNX	LZVB	LZVK	LZVF	LNNK	LNNQ
2002	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2003	100.9	95.3	95.2	101.5	101.6	104.4	105.1	102.0	104.2	104.8	101.7	98.5
2004	101.6	91.8	91.7	103.6	103.9	109.3	111.2	104.6	108.5	110.4	103.4	96.5†
Quarterly												
2002 Q1	99.6	101.6	101.6	99.8	99.7	98.5	98.7	99.3	97.8	98.0	99.0	99.4
Q2	99.9	100.8	100.8	99.7	99.8	99.5	98.9	100.1	100.3	99.8	99.9	100.8
Q3	100.1	99.3	99.3	100.3	100.2	100.8	101.4	100.1	101.5	102.1	100.2	99.2
Q4	100.5	98.4	98.4	100.2	100.2	101.2	101.0	100.4	100.4	100.2	100.9	100.6
2003 Q1	100.6	97.3	97.2	100.9	100.8	102.2	102.3	101.2	101.8	101.8	100.9	100.4
Q2	100.8	95.9	95.7	100.9	101.1	103.3	104.0	101.2	103.3	103.8	101.6	98.7
Q3	101.0	94.7	94.5	101.8	101.8	105.1	106.0	102.2	104.4	105.3	102.4	98.0
Q4	101.1	93.5	93.4	102.6	102.7	107.1	108.2	103.6	107.3	108.3	102.0	97.0
2004 Q1	101.4	92.7	92.6	103.1	103.4	108.2	109.6	104.0	108.0	109.4	102.4	96.9
Q2	101.6	92.2	92.2	103.7	103.9	109.5	111.1	104.9	108.6	110.1	102.9	96.5
Q3	101.6	91.5	91.5	103.8	104.1	109.2	111.1	104.9	108.0	109.9	103.4	96.7
Q4	101.9	90.8	90.7	103.8	104.2	110.2	112.9	104.5	109.4	112.1	104.8	96.1
2005 Q1	102.2	90.2	90.1	103.7	104.2	110.0	112.6	104.5	108.6	111.4	106.0	97.7
Q2	102.4	89.2	89.1	104.2	104.5	111.1	113.6	105.2	110.0	112.7	106.1	96.8
Q3	..	..	88.2	..	..	..	115.3	..	..	..	..	97.1
Monthly												
2004 Jan	..	..	92.7	..	..	..	109.4	..	..	..	..	96.7
Feb	..	..	92.6	..	..	..	109.0	..	..	..	..	97.2
Mar	..	..	92.6	..	..	..	110.5	..	..	..	..	96.8
Apr	..	..	92.3	..	..	..	111.0	..	..	..	..	96.2
May	..	..	92.2	..	..	..	111.1	..	..	..	..	96.6
Jun	..	..	92.2	..	..	..	111.1	..	..	..	..	96.6
Jul	..	..	91.9	..	..	..	110.3	..	..	..	..	97.4†
Aug	..	..	91.5	..	..	..	111.0	..	..	..	..	96.7
Sep	..	..	91.1	..	..	..	112.0†	..	..	..	..	96.0
Oct	..	..	90.9	..	..	..	111.5	..	..	..	..	97.0
Nov	..	..	90.6	..	..	..	113.3	..	..	..	..	95.5
Dec	..	..	90.5	..	..	..	113.8	..	..	..	..	95.8
2005 Jan	..	..	90.3	..	..	..	113.0	..	..	..	..	96.5
Feb	..	..	90.1	..	..	..	113.1	..	..	..	..	97.0
Mar	..	..	89.8	..	..	..	111.7	..	..	..	..	99.5
Apr	..	..	89.5	..	..	..	112.9	..	..	..	..	97.5
May	..	..	89.1	..	..	..	113.6	..	..	..	..	96.3
Jun	..	..	88.7	..	..	..	114.4	..	..	..	..	96.6
Jul	..	..	88.4	..	..	..	115.2	..	..	..	..	96.5
Aug	..	..	88.2†	..	..	..	115.3	..	..	..	..	97.0
Sep	..	..	87.9	..	..	..	115.2	..	..	..	..	97.6

Percentage change, quarter on corresponding quarter of previous year

Quarterly												
	LNNO	LNNR	LNNS	A4YN	LNNP	LNNT	LNNU	LZVD	LZVM	LZVH	LOJE	LOJF
2003 Q1	1.0	−4.2	−4.3	1.1	1.1	3.8	3.6	1.9	4.1	3.9	1.9	1.0
Q2	0.9	−4.9	−5.0	1.1	1.2	3.8	5.1	1.0	2.9	4.0	1.7	−2.0
Q3	0.9	−4.7	−4.8	1.4	1.6	4.3	4.5	2.1	2.9	3.2	2.1	−1.2
Q4	0.6	−5.0	−5.0	2.5	2.5	5.8	7.2	3.2	6.8	8.1	1.1	−3.5
2004 Q1	0.8	−4.7	−4.7	2.2	2.6	5.9	7.2	2.8	6.1	7.4	1.5	−3.5
Q2	0.8	−3.8	−3.7	2.8	2.8	5.9	6.8	3.7	5.2	6.1	1.2	−2.3
Q3	0.6	−3.4	−3.2	2.0	2.2	3.9	4.8	2.7	3.4	4.3	1.0	−1.3
Q4	0.8	−2.9	−2.9	1.1	1.5	2.9	4.3	0.9	2.0	3.5	2.8	−0.9
2005 Q1	0.8	−2.7	−2.7	0.6	0.8	1.6	2.7	0.4	0.5	1.9	3.6	0.8
Q2	0.9	−3.2	−3.3	0.5	0.5	1.5	2.3	0.3	1.3	2.4	3.1	0.3
Q3	..	..	−3.6	..	..	..	3.7	..	..	..	..	0.4

1 The full productivity and unit wage costs data sets with associated articles can be found on the National Statistics web site at **www.statistics.gov.uk/productivity** Contact the Labour Market Statistics helpline (020 7533 6094) for further information.
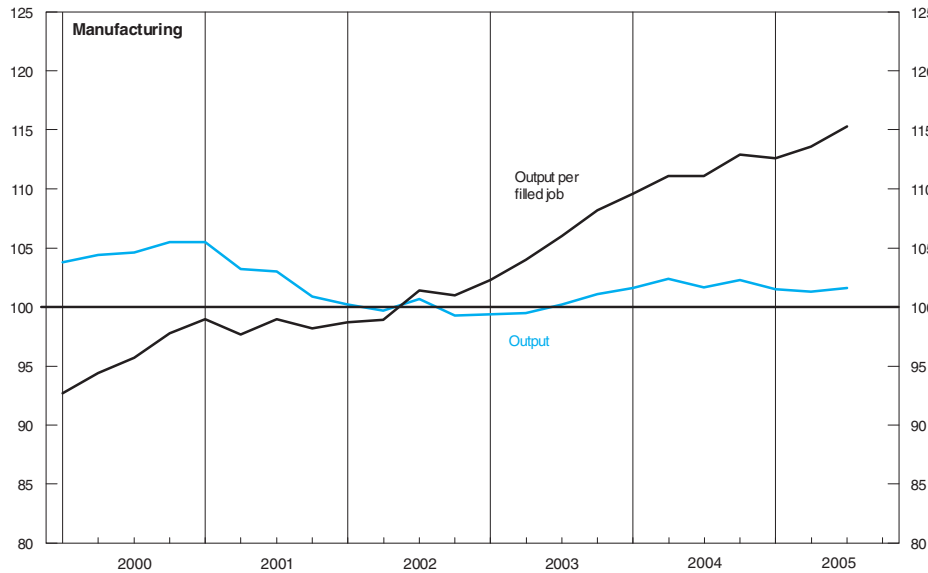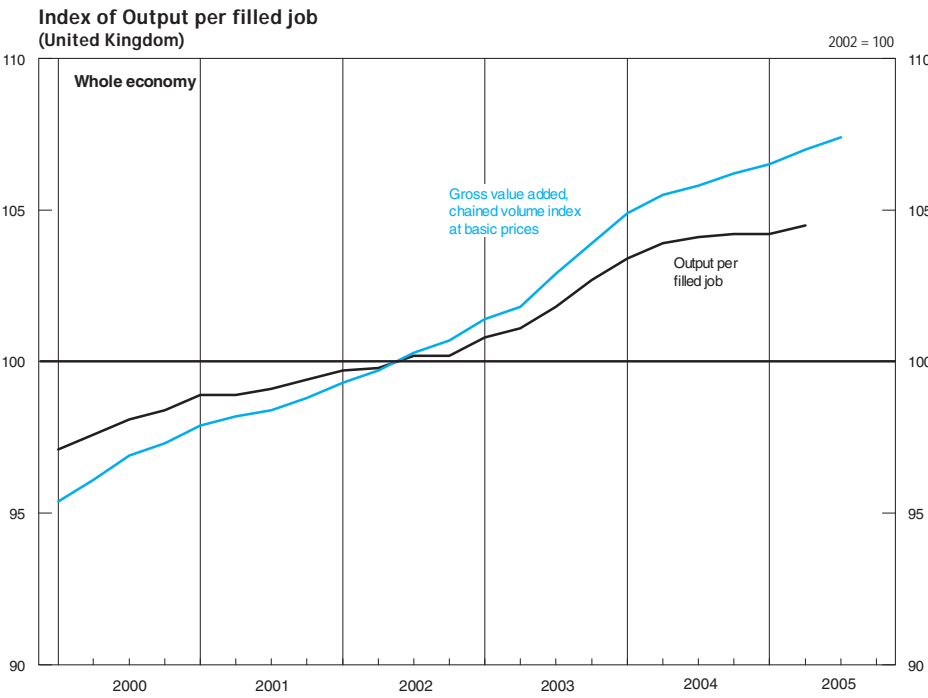
2 Output per worker is the ratio of Gross value Added (GVA) at basic prices to LFS Total Employment. On 29 July 2004, ONS published details on the National Statistics website of a change in productivity methodology. Output per worker is the new headline measure.

3 Output per filled job is the ratio of Gross value added at basic prices to productivity jobs.

4 Output per hour worked is the ratio of Gross value added at basic prices to productivity hours.

5 Unit wage costs are calculated as total wages and salaries per job divided by output per job.

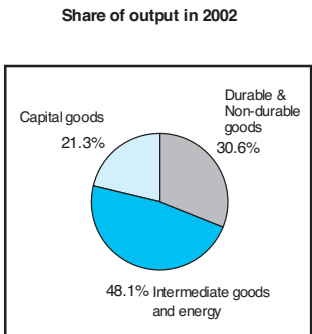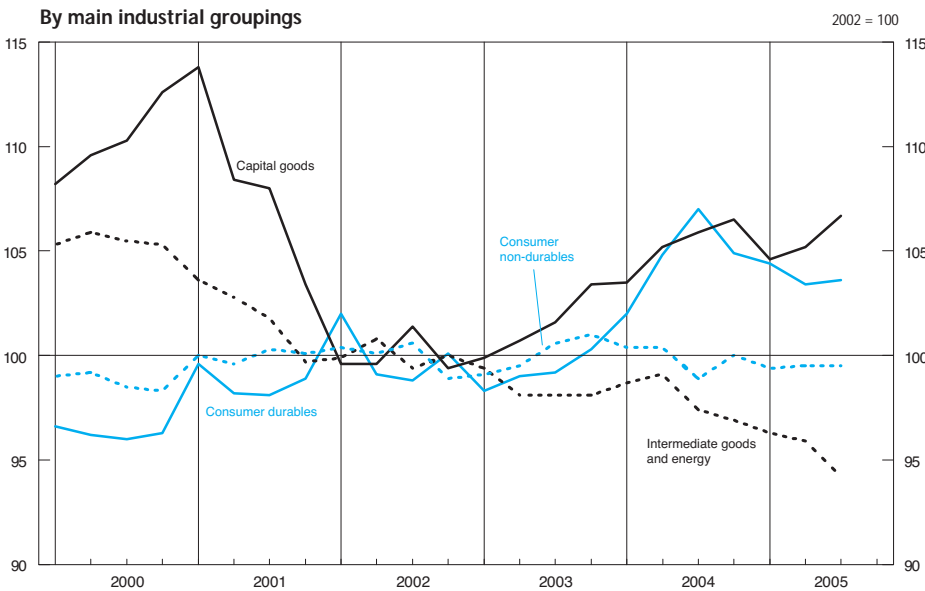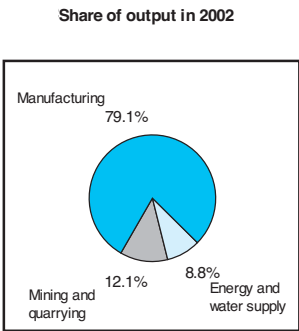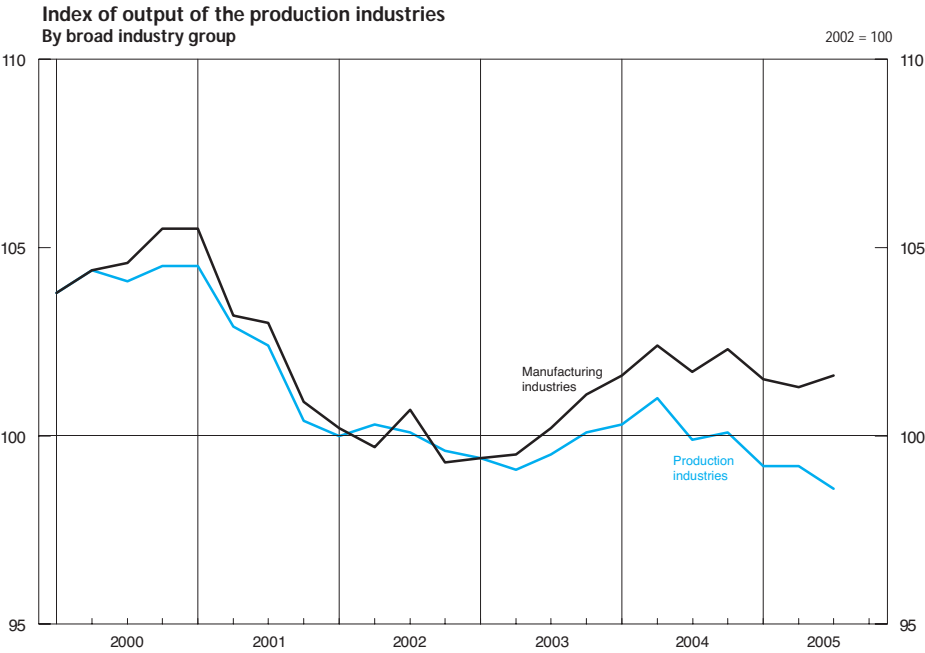*Source: Office for National Statistics; Enquiries 01633 812766*

Index of Output per filled job
(United Kingdom)

2002 = 100

Whole economy

Gross value added,
chained volume index
at basic prices

Output per
filled job

Manufacturing

Output per
filled job

Output

5.1 Output of production industries[1]

2002 = 100

	Broad industry groups				By main industrial groupings			
	Total production industries+	Mining and quarrying	Electricity, gas and water supply	Total manufacturing industries+	Consumer durables	Consumer non-durables	Capital goods	Intermediate goods and energy
2002 weights	*1 000*	*121*	*88*	*790*	*37*	*269*	*213*	*481*
Annual								
	CKYW	CKYX	CKYZ	CKYY	UFIU	UFJS	UFIL	JMOH
2000	104.2	106.1	98.2	104.6	96.3	98.8	110.2	105.5
2001	102.6	100.3	100.5	103.2	98.7	100.0	108.4	102.0
2002	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2003	99.5	94.9	101.2	100.1	99.2	100.0	101.4	98.4
2004	100.3	87.2	103.3	102.0	104.7	99.9	105.3	98.0
Quarterly								
2000 Q1	103.8	110.2	96.9	103.8	96.6	99.0	108.2	105.3
Q2	104.4	108.7	99.2	104.4	96.2	99.2	109.6	105.9
Q3	104.1	105.0	98.1	104.6	96.0	98.5	110.3	105.5
Q4	104.5	100.8	98.5	105.5	96.3	98.3	112.6	105.3
2001 Q1	104.5	99.3	102.1	105.5	99.6	100.0	113.8	103.6
Q2	102.9	101.9	101.1	103.2	98.2	99.6	108.4	102.8
Q3	102.4	100.8	99.9	103.0	98.1	100.3	108.0	101.8
Q4	100.4	99.2	98.8	100.9	98.9	100.1	103.4	99.7
2002 Q1	100.0	100.1	98.2	100.2	102.0	100.4	99.6	99.9
Q2	100.3	104.3	99.4	99.7	99.1	100.1	99.6	100.8
Q3	100.1	95.6	101.2	100.7	98.8	100.6	101.4	99.4
Q4	99.6	100.0	101.3	99.3	100.1	98.9	99.4	100.0
2003 Q1	99.4	99.6	99.3	99.4	98.3	99.1	99.9	99.4
Q2	99.1	95.2	100.2	99.5	99.0	99.5	100.7	98.1
Q3	99.5	93.5	101.6	100.2	99.2	100.6	101.6	98.1
Q4	100.1	91.1	103.5	101.1	100.3	101.0	103.4	98.1
2004 Q1	100.3	89.6	104.1	101.6	102.0	100.4	103.5	98.7
Q2	101.0	90.1	102.9	102.4	104.8	100.4	105.2	99.1
Q3	99.9	85.9	103.6	101.7	107.0	98.9	105.9	97.4
Q4	100.1	83.3	102.8	102.3	104.9	100.0	106.5	96.9
2005 Q1	99.2	82.7	101.5	101.5	104.4	99.4	104.6	96.3
Q2	99.2	83.0	102.5	101.3	103.4	99.5	105.2	95.9
Q3	98.6	76.6†	101.7†	101.6	103.6	99.5	106.7	94.2
Monthly								
2003 Jul	99.9	94.7	100.7	100.6	100.5	101.1	101.9	98.4
Aug	99.0	93.3	101.5	99.7	97.6	100.2	100.5	97.8
Sep	99.6	92.5	102.5	100.4	99.3	100.4	102.4	98.1
Oct	100.8	93.1	105.0	101.5	99.9	101.9	103.2	99.2
Nov	99.4	90.8	102.0	100.5	101.0	100.1	103.1	97.3
Dec	100.1	89.4	103.6	101.4	99.9	100.9	104.0	97.9
2004 Jan	100.1	90.1	103.0	101.4	100.9	100.5	103.2	98.5
Feb	99.8	88.6	105.1	101.0	101.5	99.9	102.9	98.3
Mar	101.0	90.1	104.0	102.3	103.6	101.0	104.3	99.4
Apr	101.0	89.7	103.1	102.4	104.6	101.5	104.5	98.8
May	100.8	88.9	103.0	102.4	104.2	99.7	106.0	98.9
Jun	101.1	91.8	102.5	102.4	105.7	100.1	105.2	99.5
Jul	100.4	91.7	103.0	101.4	108.4	97.7	105.8	98.8
Aug	99.7	84.7	104.2	101.5	106.4	99.4	105.0	97.0
Sep	99.7	81.3	103.5	102.1	106.3	99.5	106.8	96.2
Oct	99.1	81.8	102.5	101.4	105.4	99.3	105.7	95.6
Nov	100.4	83.5	103.4	102.7	103.4	100.4	106.9	97.3
Dec	100.7	84.6	102.4	102.9	105.8	100.1	106.9	97.8
2005 Jan	99.6	82.7	100.9	102.1	103.4	100.4	105.1	96.5
Feb	99.5	82.3	101.4	102.0	105.6	100.0	105.1	96.3
Mar	98.4	83.3	102.2	100.3	104.2	98.0	103.7	95.9
Apr	99.1	83.3	103.2	101.1	105.5	98.4	104.9	96.5
May	99.3	84.4	102.3	101.3	103.0	99.6	105.1	96.3
Jun	99.1	81.3	102.0	101.5	101.9	100.6	105.6	95.1
Jul	99.0†	78.6†	101.6†	101.9†	102.4	100.4	106.7†	94.6†
Aug	98.2	73.2	101.0	101.7	103.5†	99.2†	106.9	93.3
Sep	98.6	78.1	102.4	101.4	104.9	98.9	106.4	94.6

1 The figures contain, where appropriate, an adjustment for stock changes.

Source: Office for National Statistics; Enquiries 01633 812059

Index of output of the production industries
By broad industry group   2002 = 100

Share of output in 2002

Manufacturing
79.1%

Mining and   12.1%   8.8%   Energy and
quarrying   water supply

By main industrial groupings   2002 = 100

Share of output in 2002

Capital goods   Durable &
21.3%   Non-durable
                                       goods
                                       30.6%

48.1% Intermediate goods
and energy

5.2 Engineering and construction : output and orders
Seasonally adjusted Index numbers at constant prices[1]

| | Engineering (2000 =100) | | | | | | | | | Construction(GB)[5] (2000=100) | |
| | Total | | | Home | | | Export | | | | |
	Orders[2] on Hand	New[3] Orders	Turnover	Orders[2] on Hand	New[3] Orders	Turnover	Orders[2] on Hand	New[3] Orders	Turnover	Gross output+[4]	Orders received
Annual											
	JIQI	JIQH	JIQJ	JIQC	JIQB	JIQD	JIQF	JIQE	JIQG	SFZX	SGAA
2000	103.4	100.0	100.0	104.9	100.0	100.0	100.8	100.0	100.0	100.0	100.0
2001	94.4	89.5	95.3	104.6	94.5	98.4	77.2	82.9	91.2	102.0	99.5
2002	92.7	80.8	84.5	104.8	88.0	91.8	72.1	71.2	74.8	106.3	102.5
2003	92.7	78.9	81.6	108.7	87.9	90.2	65.5	66.8	70.3	111.7	97.8
2004	89.3	78.3	82.1	103.2	83.9	89.2	65.9	70.8	72.6	115.2	104.8
Quarterly											
2000 Q1	96.2	95.9	94.1	96.6	96.2	95.1	95.7	95.5	92.8	102.4	97.5
Q2	100.6	101.6	99.9	100.2	101.0	100.3	101.3	102.4	99.3	99.4	106.9
Q3	102.7	100.7	101.5	101.8	99.2	101.0	104.4	102.8	102.2	98.3	102.1
Q4	103.4	101.8	104.5	104.9	103.6	103.6	100.8	99.4	105.7	99.9	93.5
2001 Q1	104.4	102.1	104.4	106.2	102.2	104.7	101.3	102.0	104.2	101.2	108.4
Q2	102.0	91.0	97.1	108.2	97.8	99.0	91.3	81.9	94.5	101.3	95.6
Q3	99.9	86.6	92.0	107.6	91.5	96.0	86.9	79.9	86.6	102.1	103.6
Q4	94.4	78.5	87.8	104.6	86.4	93.9	77.2	67.8	79.6	103.5	90.5
2002 Q1	94.9	81.5	85.3	105.0	87.8	92.1	77.9	73.2	76.2	105.3	107.6
Q2	93.6	80.4	84.7	105.4	89.3	92.5	73.8	68.5	74.5	104.7	90.7
Q3	93.8	81.8	84.4	106.4	89.4	91.7	72.6	71.7	74.8	106.8	109.2
Q4	92.7	79.5	83.6	104.8	85.5	91.1	72.1	71.3	73.6	108.5	102.5
2003 Q1	90.9	76.4	81.1	103.4	85.3	90.7	69.8	64.4	68.5	108.7	104.7
Q2	91.7	79.7	81.5	104.9	88.9	90.4	69.3	67.4	69.7	110.4	95.8
Q3	91.5	78.7	81.6	106.0	88.1	90.2	66.8	66.0	70.2	113.5	98.0
Q4	92.7	80.8	82.2	108.7	89.3	89.3	65.5	69.5	72.6	114.4	92.7
2004 Q1	93.7	78.6	80.3	108.7	83.1	86.6	68.3	72.7	72.0	117.1	108.5
Q2	92.5	78.4	82.5	106.3	82.2	88.8	69.2	73.2	74.1	114.2	106.2
Q3	90.2	77.4	82.8	103.7	83.1	89.9	67.3	69.6	73.4	115.1	99.8
Q4	89.3	78.9	82.7	103.2	87.3	91.6	65.9	67.7	71.0	114.3	104.8
2005 Q1	89.4	78.2	80.8	100.8	82.9	89.4	70.1	71.9	69.4	114.2	106.5
Q2	89.3	78.4	81.2	99.9	84.9	89.5	71.3	69.8	70.3	115.2	115.8
Q3	91.2	81.0	81.9	102.2	88.7	89.8	72.6	70.6	71.4	..	106.7
Monthly											
2003 Aug	91.7	77.7	80.3	106.1	90.5	88.5	67.2	60.5	69.4	..	80.7
Sep	91.5	78.4	81.8	106.0	86.7	90.5	66.8	67.3	70.3	..	102.3
Oct	92.3	82.6	82.5	107.3	92.1	90.7	66.8	69.8	71.6	..	87.3
Nov	94.0	84.6	81.3	110.0	95.5	88.8	66.9	70.0	71.4	..	102.7
Dec	92.7	75.3	82.7	108.7	80.2	88.5	65.5	68.7	74.9	..	88.2
2004 Jan	94.0	81.3	80.0	108.9	84.1	87.1	68.7	77.6	70.7	..	90.2
Feb	91.6	68.9	79.8	106.6	72.1	84.4	66.2	64.5	73.7	..	126.1
Mar	93.7	85.7	81.0	108.7	93.0	88.2	68.3	76.0	71.5	..	109.2
Apr	92.0	72.3	81.1	105.0	69.6	87.2	69.9	75.9	73.0	..	103.4
May	92.8	82.9	82.6	105.7	88.1	88.9	71.0	76.0	74.4	..	111.3
Jun	92.5	79.9	83.7	106.3	89.0	90.4	69.2	67.6	74.9	..	103.9
Jul	92.8	81.7	83.5	106.8	89.0	90.6	69.1	72.0	74.1	..	109.5
Aug	91.1	73.2	82.0	104.5	76.2	88.3	68.2	69.1	73.7	..	100.6
Sep	90.2	77.2	82.9	103.7	84.2	90.9	67.3	67.8	72.3	..	89.2
Oct	89.2	75.3	81.8	102.5	82.5	90.6	66.5	65.7	70.0	..	101.3
Nov	88.8	79.5	83.5	102.3	88.7	93.3	66.0	67.2	70.6	..	107.6
Dec	89.3	82.0	82.9	103.2	90.7	90.9	65.9	70.3	72.3	..	105.5
2005 Jan	89.5	79.4	81.3	104.0	90.4	90.7	65.0	64.7	68.9	..	103.5
Feb	89.5	78.4	81.3	103.0	83.2	90.5	66.5	71.8	69.2	..	99.7
Mar	89.4	76.8	79.7	100.8	75.1	87.1	70.1	79.2	70.0	..	116.4[†]
Apr	88.8	77.5	82.3	101.9	90.8	89.9	66.5	59.7	72.4	..	106.7
May	89.4	80.2	80.6	101.1	82.0	88.8	69.7	77.8	69.8	..	128.6
Jun	89.3	77.5	80.7	99.9	81.8	89.9	71.3	71.8	68.6	..	112.1
Jul	89.9[†]	79.4[†]	81.1[†]	100.1[†]	85.2[†]	89.5[†]	72.7[†]	71.6[†]	69.9[†]	..	104.4
Aug	92.0	87.0	82.4	102.9	98.1	90.9	73.6	72.0	71.2	..	112.9
Sep	91.2	76.6	82.1	102.2	82.8	88.9	72.6	68.3	73.2	..	102.7

1 The figures shown represent the output of United Kingdom based manufac-
turers classified to Subsections DK and DL of the Standard Industrial Clas-
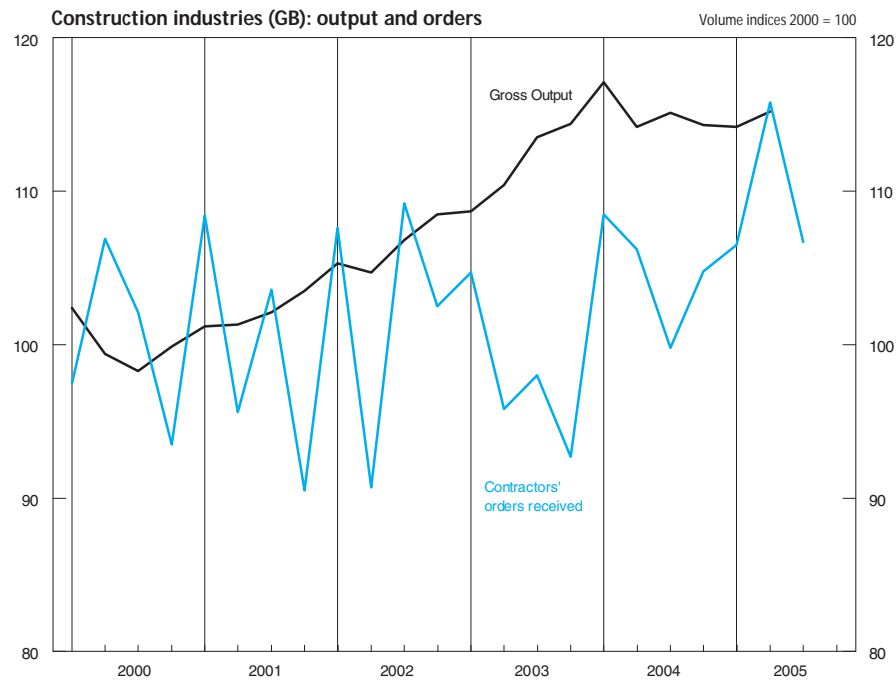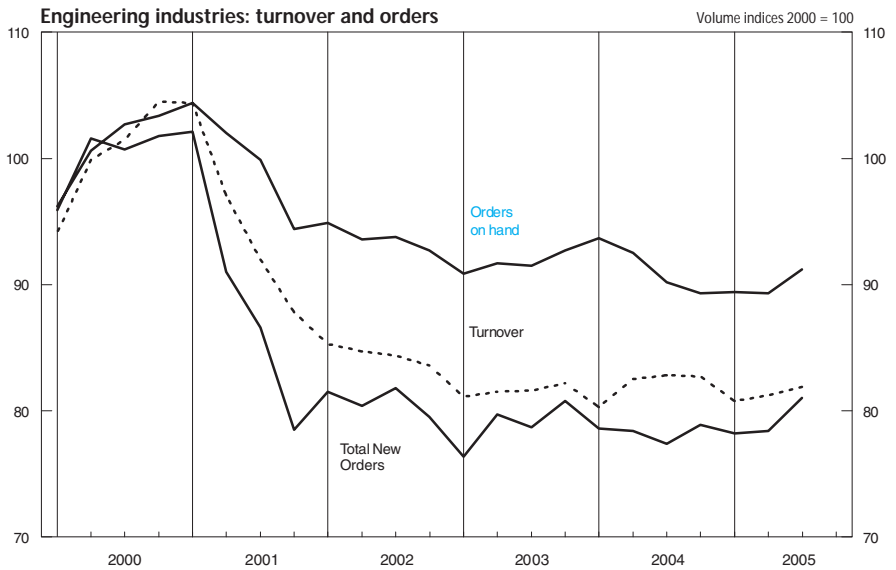sification (2003).
2 For Orders on Hand, the annual and quarterly index values represent the
value at the end of the period in question, rather than the average value for
that period, so the annual value shown for 2000 may not equal 100.

3 Net of cancellations.
4 This index is based upon a gross output series which includes repair and
maintenance estimates, unrecorded output by self-employed workers and small
firms and output by the direct labour departments of the public sector.
5 Data are subject to revisions following changes to the deflation methodology.
*Sources: Office for National Statistics; Enquiries Columns 1-9 01633 812540;
Department of Trade and Industry;
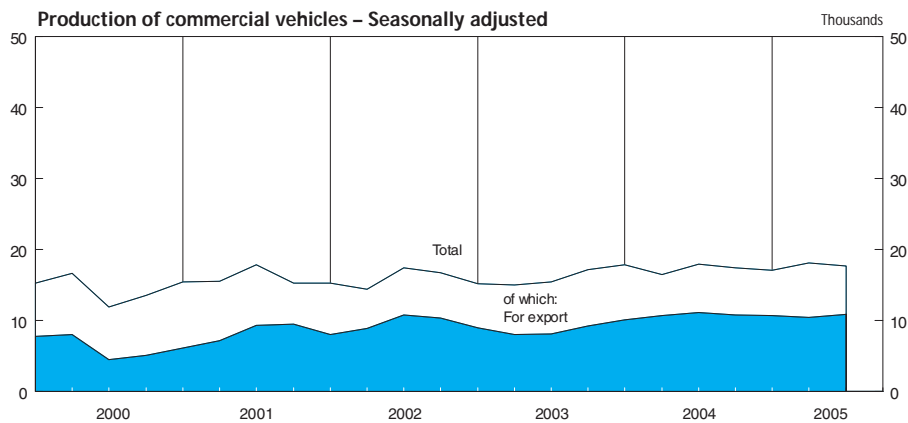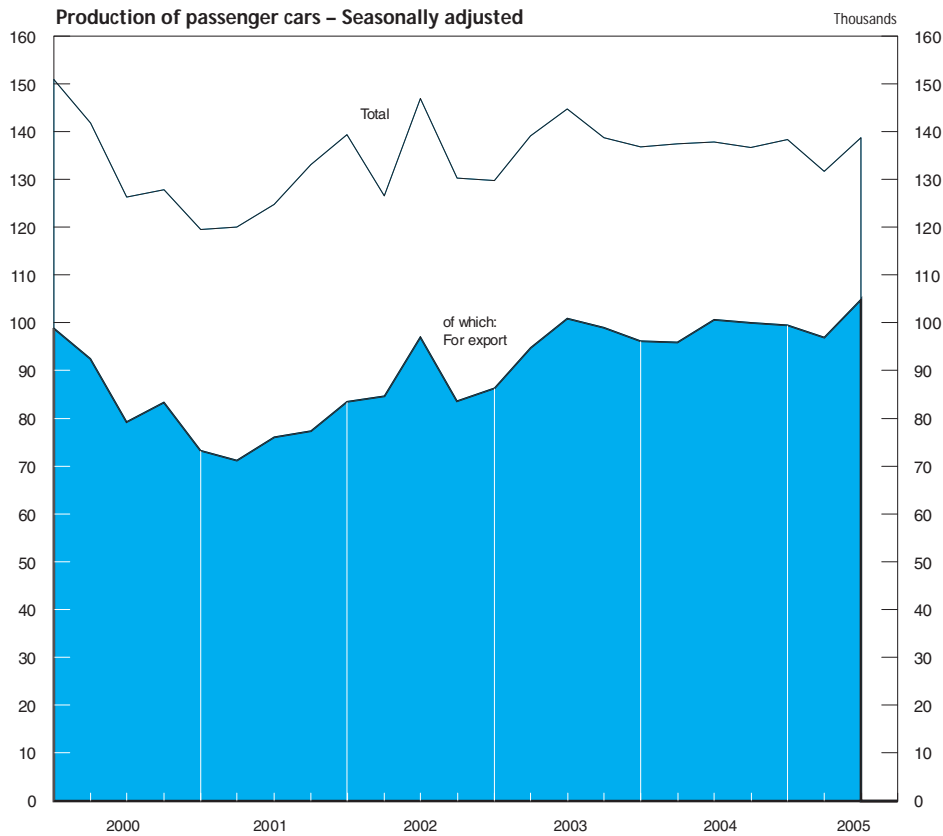Enquiries Columns 10-11 020 7944 5583*

Engineering industries: turnover and orders

Volume indices 2000 = 100

Orders
on hand

Turnover

Total New
Orders

Construction industries (GB): output and orders

Volume indices 2000 = 100

Gross Output

Contractors'
orders received

5.3 Motor vehicle and steel production

	Passenger cars[1]				Commercial vehicles[1]				Crude steel production (NSA)[2] (thousand tonnes)
	Not seasonally adjusted		Seasonally adjusted		Not seasonally adjusted		Seasonally adjusted		
	Total production (thousands)	*of which* for export (thousands)	Total production (thousands)	*of which* for export (thousands)	Total production (thousands)	*of which* for export (thousands)	Total production (thousands)	*of which* for export (thousands)	
Annual									
	FFAA	FFAB	FFAO	FFAP	FFAC	FFAD	FFAQ	FFAR	BCBS
2000	136.8	88.6	136.8	88.6	14.3	6.3	14.4	6.4	15 154.6
2001	124.4	74.5	124.4	74.5	16.1	8.0	16.1	8.0	13 542.7
2002	135.7	87.3	135.8	87.3	15.9	9.5	15.9	9.5	11 667.1
2003	138.1	95.3	138.1	95.3	15.7	8.6	15.7	8.6	13 128.4
2004	137.2	98.3	137.2	98.3	17.4	10.7	17.4	10.7	13 765.8
Quarterly									
2000 Q1	164.8	105.0	150.9	98.9	16.7	8.4	15.3	7.8	4 442.5
Q2	144.4	97.6	141.9	92.6	17.3	8.2	16.7	8.0	4 019.8
Q3	111.7	63.2	126.4	79.4	9.5	3.5	11.9	4.5	3 288.7
Q4	126.3	88.6	127.9	83.4	13.7	5.2	13.6	5.1	3 403.6
2001 Q1	129.0	75.5	119.5	73.3	17.2	6.6	15.5	6.1	3 651.7
Q2	124.1	76.5	120.1	71.3	16.6	7.7	15.6	7.2	3 729.6
Q3	111.9	61.0	124.8	76.1	14.5	7.4	17.9	9.3	3 205.5
Q4	132.4	85.1	133.1	77.4	16.1	10.3	15.3	9.5	2 955.9
2002 Q1	149.9	85.0	139.4	83.5	16.7	8.4	15.3	8.0	3 046.3
Q2	133.5	94.0	126.6	84.7	14.8	9.4	14.4	8.9	3 060.0
Q3	130.6	80.7	147.0	97.1	14.9	9.3	17.4	10.8	2 801.9
Q4	128.7	89.3	130.3	83.7	17.3	10.9	16.7	10.3	2 758.9
2003 Q1	141.4	91.5	129.8	86.4	16.5	9.3	15.2	9.0	3 081.0
Q2	144.4	101.3	139.1	94.8	15.5	8.3	15.0	8.0	3 258.7
Q3	130.4	85.8	144.8	101.0	13.4	6.9	15.5	8.1	3 264.3
Q4	136.2	102.7	138.8	99.1	17.6	9.7	17.2	9.2	3 524.4
2004 Q1	148.5	101.2	136.8	96.3	19.3	10.4	17.9	10.1	3 380.7
Q2	142.7	102.3	137.5	96.0	16.9	11.2	16.5	10.7	3 681.4
Q3	126.3	88.3	137.9	100.7	15.6	9.7	18.0	11.1	3 405.2
Q4	131.4	101.5	136.7	100.1	17.9	11.4	17.4	10.8	3 298.5
2005 Q1	144.3	99.1	138.4	99.6	18.4	11.3	17.1	10.7	3 310.9
Q2	138.7	105.3	131.7	97.0	18.2	10.7	18.1	10.4	3 523.8
Q3	125.7	91.5	138.8†	104.9†	14.9	9.2	17.7	10.9†	3 106.0†
Monthly									
2003 Jul	146.3	93.1	144.1	98.3	15.2	7.6	16.6	8.4	1 245.8*
Aug	91.4	57.5	145.0	100.4	7.8	3.8	14.9	7.6	977.8
Sep	153.5	106.8	145.3	104.3	17.1	9.2	15.0	8.3	1 040.7
Oct	153.4	113.8	138.6	96.8	16.8	9.5	15.4	8.6	1 198.0*
Nov	142.9	110.5	134.8	99.3	19.0	9.8	17.2	9.5	1 117.8
Dec	112.4	83.8	142.9	101.1	17.0	9.9	19.0	9.6	1 208.6*
2004 Jan	141.3	96.4	138.7	97.9	20.5	9.6	19.6	11.0	1 009.3
Feb	141.1	93.0	131.9	92.2	17.3	10.0	16.4	9.9	1 024.9
Mar	163.1	114.3	139.7	98.8	20.2	11.7	17.7	9.3	1 346.5*
Apr	129.6	95.7	136.6	98.1	15.7	10.1	16.0	10.2	1 155.5
May	143.1	102.3	139.3	92.9	16.9	11.9	17.4	11.5	1 160.7
Jun	155.5	108.9	136.7	97.1	18.2	11.6	16.2	10.5	1 365.2*
Jul	140.5	100.5	145.2	107.4	14.9	10.1	16.7	11.3	1 042.6
Aug	83.2	56.7	132.5	97.2	10.2	5.7	18.1	9.8	1 015.8
Sep	155.3	107.6	136.0	97.6	21.7	13.3	19.1	12.2	1 346.8*
Oct	135.1	107.2	134.1	102.0	18.6	12.2	18.1	11.4	1 091.5
Nov	149.3	114.4	140.4	102.1	20.1	12.3	17.0	10.3	1 001.4
Dec	109.7	82.8	135.7	96.3	14.9	9.7	17.0	10.6	1 205.6*
2005 Jan	136.0	89.2	137.0	95.1	17.7	10.7	17.0	11.0	1 033.5
Feb	143.5	98.3	138.8	100.6	18.0	10.7	17.2	10.5	1 016.8
Mar	153.3	109.9	139.4	103.1	19.6	12.6	17.2	10.5	1 260.6*
Apr	139.8	105.1	140.1	100.3	18.9	11.4	20.1	11.9	1 161.8
May	132.0	99.1	130.2	94.3	17.5	10.7	17.9	10.1	1 147.5
Jun	144.3	111.7	124.9	96.5	18.3	10.0	16.3	9.3	1 214.5*
Jul	130.2	93.8	134.7†	99.9†	14.2	8.5	17.3†	10.4	966.4
Aug	97.1	71.8	146.0†	114.2†	10.8	6.8	18.2†	11.2†	1 180.2*†
Sep	149.9	108.9	135.7	100.5	19.7	12.4	17.5	11.2†	959.4
Oct	124.8	99.4	126.2	95.7	18.4	12.4	16.9	10.4	995.7[3]

1 Annual and quarterly figures are monthly averages.
2 The totals are for 'usable steel' in accordance with the system used by the EC and the IISI, **but** in a change from previous publications, figures are actual production totals based on a four or five week period (not seasonally adjusted).

3 Provisional.

Sources: Office for National Statistics; Enquiries Columns 1-8 01633 812810; ISSB Ltd; Enquiries Column 9 020 7343 3900

Production of passenger cars – Seasonally adjusted   Thousands

Total

of which:
For export

2000   2001   2002   2003   2004   2005

Production of commercial vehicles – Seasonally adjusted   Thousands

Total

of which:
For export

2000   2001   2002   2003   2004   2005

T53

5.4 Indicators of fixed investment in dwellings

	Fixed investment in dwellings (£ million, chained volume measures, reference year 2002)	Orders received by contractors for new houses (GB) (£ million, 2000 prices)	Housing starts (NSA)[1] (GB)			Housing completions (NSA)[1] (GB)			Mix-adjusted price of new dwellings at mortgage completion stage (NSA)[3] (£)
			Private enterprise (thousands)	Registered Social Landlords[2] (thousands)	Local Authorities (thousands)	Private enterprise (thousands)	Registered Social Landlords[2] (thousands)	Local Authorities (thousands)	
Annual									
	DFEG	SGAB	FCAB	CTOR	CTOV	FCAD	CTOT	CTOX	WMPS
2001	32 006	7 122	162.7	16.8	0.3	139.9	20.9	0.3	134 234
2002	34 499	7 805	164.5	16.2	0.2	149.2	19.3	0.2	161 533
2003	36 056	8 219	177.4	16.2	0.3	158.2	17.2	0.3	186 427
2004	38 879	9 472	193.6	19.0	0.2	166.1	19.6	0.1	205 818
Quarterly									
2001 Q1	7 911	1 767	39.2	5.7	0.2	32.5	5.6	0.1	130 771
Q2	7 891	1 772	43.7	4.2	–	34.4	4.7	0.1	130 774
Q3	8 252	1 822	43.5	3.2	–	35.5	4.6	0.1	135 507
Q4	7 952	1 761	36.3	3.7	0.1	37.5	5.9	0.1	137 368
2002 Q1	8 006	1 916	41.7	5.4	0.1	33.6	5.1	–	143 996
Q2	8 396	1 782	42.5	3.8	0.1	36.8	4.6	0.2	157 646
Q3	8 829	2 031	44.0	3.4	–	36.4	4.7	–	164 293
Q4	9 268	2 075	36.3	3.6	–	42.4	4.9	–	173 254
2003 Q1	8 824	2 095	44.2	5.0	0.1	34.6	4.5	0.1	175 947
Q2	8 835	2 108	46.9	4.4	0.2	39.3	4.1	0.1	187 676
Q3	9 165	1 894	45.8	3.8	–	37.5	4.5	–	188 711
Q4	9 232	2 123	40.6	3.0	0.1	46.8	4.1	0.1	193 373
2004 Q1	9 487	2 346	46.9	6.5	–	34.0	5.1	–	194 276
Q2	9 747	2 287	52.0	4.3	0.1	43.0	4.1	0.1	204 679
Q3	9 790	2 488	51.2	3.6	–	43.5	4.7	–	212 505
Q4	9 855	2 351	43.5	4.6	–	45.6	5.8	–	211 812
2005 Q1	9 730	2 234†	..	..	..	..	..	..	214 704
Q2	9 714	2 698	..	..	..	..	..	..	216 780
Q3	9 813	2 611	..	..	..	..	..	..	220 607
Monthly									
2003 Jul	..	692	..	..	..	..	..	..	186 807
Aug	..	597	..	..	..	..	..	..	191 100
Sep	..	605	..	..	..	..	..	..	188 227
Oct	..	724	..	..	..	..	..	..	195 551
Nov	..	743	..	..	..	..	..	..	189 913
Dec	..	656	..	..	..	..	..	..	194 655
2004 Jan	..	796	..	..	..	..	..	..	195 238
Feb	..	754	..	..	..	..	..	..	192 165
Mar	..	796	..	..	..	..	..	..	195 426
Apr	..	880	..	..	..	..	..	..	201 796
May	..	697	..	..	..	..	..	..	203 015
Jun	..	710	..	..	..	..	..	..	209 225
Jul	..	758	..	..	..	..	..	..	211 663
Aug	..	889	..	..	..	..	..	..	211 314
Sep	..	841	..	..	..	..	..	..	214 537
Oct	..	742	..	..	..	..	..	..	214 509
Nov	..	805	..	..	..	..	..	..	212 354
Dec	..	803	..	..	..	..	..	..	208 574
2005 Jan	..	650†	..	..	..	..	..	..	212 952
Feb	..	776	..	..	..	..	..	..	213 093
Mar	..	809	..	..	..	..	..	..	218 067
Apr	..	963	..	..	..	..	..	..	213 950
May	..	777	..	..	..	..	..	..	217 361
Jun	..	958	..	..	..	..	..	..	219 029
Jul	..	958	..	..	..	..	..	..	221 548
Aug	..	805	..	..	..	..	..	..	220 141
Sep	..	848	..	..	..	..	..	..	220 132

1 Monthly data collection ceased after March 2003. Great Britain seasonally adjusted data are no longer updated. Seasonally adjusted data for England are available from the website of the Office of the Deputy Prime Minister: **www.odpm.gov.uk**

2 Includes registered and non-registered social landlords.

3 Series is based on mortgage lending by all financial institutions rather than building societies only, as previously published. This change has been made necessary because of the mergers. takeovers and conversions to plc status affecting the building society sector.

The series is based on the Office of the Deputy Prime Ministers' survey of mortgage lenders (at completion stage), but now includes all mortgage lenders rather than building societies only. From February 2002, monthly data have been obtained from the enlarged survey and quarterly data from 2002q2 are based on monthly prices. From September 2005, figures are based on the new Regulated Mortgage Survey (CML/BankSearch). Prices have been chain-linked to adjust for the structural change arising from the new survey.

Sources: Office for National Statistics;
Enquiries Column 1 020 7533 6010;
Department of Trade and Industry ; Column 2 020 7944 5583;
Office of the Deputy Prime Minister;
Columns 3-8 0117 372 8055; Column 9 020 7944 3325

Fixed investment in dwellings

£ million

Fixed investment
in dwellings
(chained volume measure)

Orders for
new houses (GB)
(2000 prices)

Housing completions (NSA)

Percentage change, quarter on corresponding
quarter of previous year

Private enterprise (GB)

Registered
Social
Landlords
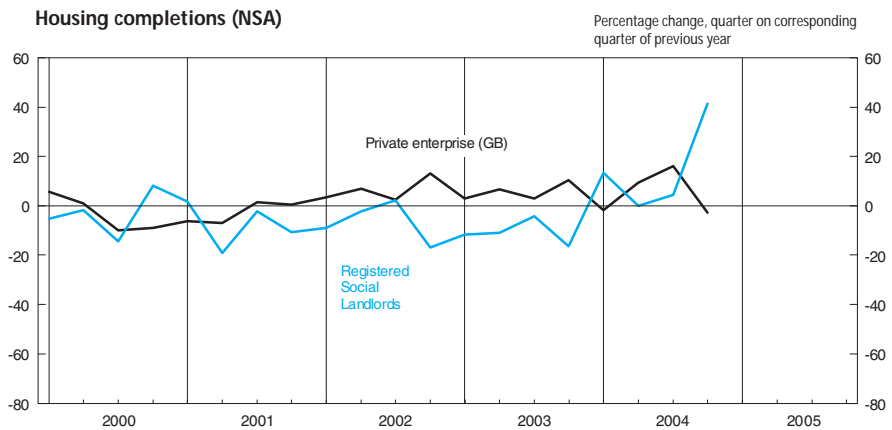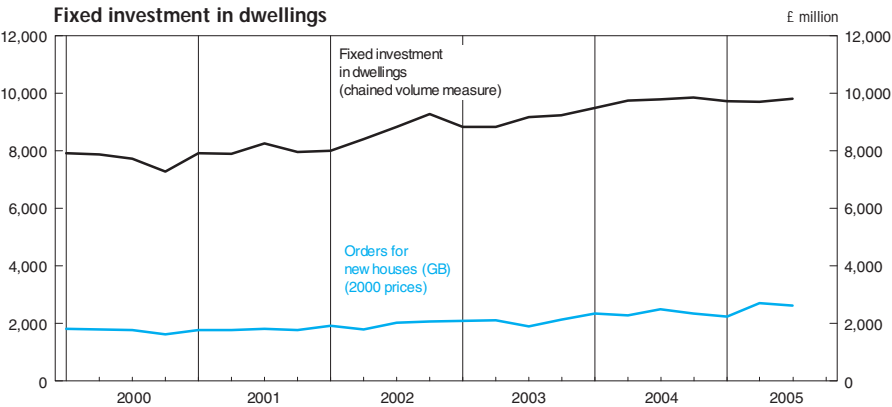
5.5 Number of property transactions[1,2,3]

Thousands

	Number of property transactions				Number of property transactions		
	Not seasonally adjusted England & Wales	Seasonally adjusted England & Wales[4,5]	Not seasonally adjusted England, Wales & N. Ireland		Not seasonally adjusted England & Wales	Seasonally adjusted England & Wales[4,5]	Not seasonally adjusted England, Wales & N. Ireland
	FTAP		FTAR	May	137	140	140
2001	1 458		1 497	Jun	129	135	132
2002	1 586		1 627				
2003	1 345		1 397	Jul	152	134	154
2004	1 786		1 830	Aug	166	149	171
				Sep	139	134	144
		FTAQ		Oct	147	131	151
2001 Q1	327	346	337	Nov	127	124	131
Q2	347	363	360	Dec	118	131	122
Q3	396	369	405				
Q4	387	379	396	2003 Jan	131	121	137
				Feb	103	120	109
2002 Q1	342	374	351	Mar	106	119	113
Q2	395	410	404	Apr	101	113	108
Q3	457	417	468	May	101	106	105
Q4	392	385	404	Jun	103	105	107
2003 Q1	340	361	359	Jul	132	115	135
Q2	306	323	320	Aug	112	106	116
Q3	358	327	369	Sep	114	106	118
Q4	340	333	349	Oct	120	108	124
				Nov	110	109	113
2004 Q1	447	470	457	Dec	111	116	113
Q2	452	459	463				
Q3	491	447	504	2004 Jan	157	151	160
Q4	396	411	406	Feb	148	171	152
				Mar	142	147	145
2005 Q1	322	351	329	Apr	140	151	143
Q2	363	358	375	May	145	152	148
Q3	464	416	478	Jun	167	156	172
2001 Jan	123	113	127	Jul	175	151	179
Feb	99	117	102	Aug	159	148	163
Mar	105	116	108	Sep	158	148	162
Apr	101	115	105	Oct	138	142	142
May	121	122	126	Nov	124	132	128
Jun	125	125	128	Dec	134	136	136
Jul	132	120	135	2005 Jan	108	107	109
Aug	140	125	143	Feb	112	126	114
Sep	124	124	127	Mar	102	119	105
Oct	140	125	143	Apr	112	117	115
Nov	137	131	141	May	113	119	116
Dec	110	123	112	Jun	139	123	144
2002 Jan	131	120	134	Jul	137	127	141
Feb	108	127	110	Aug	157	137	162
Mar	104	127	106	Sep	170	152	175
Apr	129	135	132	Oct	146	141	151

1 The figures are based on counts of the relevant administrative forms successfully processed each month. For completions up to and including November 2003 the relevant form was the Particulars Delivered form. Since December 2003 the relevant form is the Land Transaction Return associated with the introduction of Stamp Duty Land Tax (although in December 2003 most forms processed were still Particulars Delivered forms). The count of Land Transaction Return forms is based on the month when the Stamp Duty Land Tax certificate is issued. The figures for the the latest month includes estimates for returns where a certificate has been issued but the form was not captured on the database at the time the count was taken. The figure is therefore subject to revision next month.

2 Because of the change in administrative arrangements associated with the introduction of Stamp Duty Land Tax, the figures from December 2003 onwards may not be comparable with the earlier series. In particular Land Transaction Returns in respect of transactions subject to Stamp Duty Land Tax are being submitted more promptly by conveyancers than Particulars Delivered forms in respect of transactions subject to stamp duty. The overhang of particulars delivered forms into the first quarter of 2004 has boosted the total property transactions processed figures in that quarter.

Other reasons for higher figures since the introduction of Stamp Duty Land Tax include (1) there are some types of transaction which require a Land Transaction Return which did not require a Particulars Delivered form and (2) there are higher numbers of registering commercial transactions.

3 Because of the time lags involved, the series above should be lagged by one month to give a broad representation of transactions completed in the month. However this relationship was weaker in the second quarter of 2002, because of the operational pressures in the network of Stamp Offices which delayed the processing of a proportion of property transactions.

4 The Jubilee celebrations meant that the late May bank holiday was taken in June 2002. Seasonal features in the data arising from the May Bank holiday will therefore not automatically be removed by the process of seasonal adjustment. Caution should therefore be taken when interpreting monthly movements involving May or June 2002 data.

5 The sum of seasonally adjusted components does not exactly match the unadjusted (definitive) annual total.

6 On 19 July the Inland Revenue ended the arrangement under which a Stamp Duty Land Tax certificate could be issued even though some of the required information had not been provided (the 'light touch' process). This is likely to have reduced the transaction count for July and August by a few thousand.

Source: HM Revenue and Customs; Enquiries 020 7147 2941

5.6 Change in inventories
Chained volume measures[1]

Reference year 2002, £ million

| | Mining and quarrying | Manufacturing industries | | | | Electricity, gas and water supply | Distributive trades | | Other industries[3] | Change in inventories |
		Materials and fuel	Work in progress	Finished goods	Total		Wholesale[2]	Retail[2]		
Level of inventories at end-December 2004	1034	16 155	15 931	19 676	51 762	1726	27 873	26 080	45 284	153 759
Quarterly										
	FAEA	FBNF	FBNG	FBNH	DHBM	FAEB	FAJX	FBYN	DLWX	CAFU
2001 Q1	63	−652	325	−133	−459	−214	566	−130	1 215	1 040
Q2	−45	−200	331	224	354	190	−76	−160	1 112	1 375
Q3	93	352	271	32	656	88	519	229	76	1 662
Q4	−15	93	−413	45	−275	−15	−299	1 076	1 647	2 119
2002 Q1	48	118	36	615	769	−63	13	674	−264	1 177
Q2	−30	−82	−159	−128	−369	140	810	1 112	−1 269	394
Q3	−20	−115	341	−263	−37	−66	431	−74	246	480
Q4	−26	−311	−222	−588	−1 121	−110	−643	−94	2 852	858
2003 Q1	−25	540	137	34	711	67	169	167	−986	103
Q2	53	−385	−130	−215	−730	−5	−583	455	423	−387
Q3	−86	−213	−246	279	−180	−41	275	274	2 097	2 339
Q4	1	−34	−266	−228	−528	−1	369	247	2 459	2 547
2004 Q1	7	−89	60	−613	−642	156	40	1 047	543	1 151
Q2	−4	−96	−356	361	−91	−165	1 441	−617	613	1 177
Q3	−41	100	−80	219	239	5	−398	794	695	1 294
Q4	−1	−24	−271	−38	−333	−82	181	405	1 356	1 526
2005 Q1	−	265	175	−31	409	−108	−10	−168	1 649	1 772
Q2	−28	−213	−69	−245	−527	225	12	−192	456	−54
Q3	−24	23	−51	34	6	−39	−49	−10	1 174	1 058

1 Estimates are given to the nearest £ million but cannot be regarded as accurate to this degree.
2 Wholesaling and retailing estimates exclude the motor trades.

3 Quarterly alignment adjustment included in this series. For description see notes to the *Economic Trends Annual Supplement.* For details of adjustments, see notes section in the Sector and Financial Accounts article in *UK Economic Accounts.*
Sources: Office for National Statistics; Enquiries Columns 1-8 020 7533 6264; Columns 9-10 020 7533 6031

5.7 Inventory ratios

| | Manufacturers' inventories[1] to manufacturing production | | | | Retail inventories[1] to retail sales[2] | Total inventories[1,3] to gross value added |
	Materials and fuel	Work in progress	Finished goods	Total inventories		
Quarterly						
	FAPG	FAPH	FAPI	FAPF	FAPC	FDCA
2001 Q1	97.6	101.0	99.3	99.3	98.9	100
Q2	98.6	105.3	102.8	102.3	96.3	101
Q3	100.9	107.1	103.0	103.6	95.6	102
Q4	103.6	106.8	105.5	105.3	99.2	103
2002 Q1	101.8	104.5	106.1	104.2	100.5	103
Q2	101.8	104.0	106.0	104.1	103.5	103
Q3	100.1	105.0	103.6	103.0	102.4	102
Q4	99.7	105.2	102.0	102.3	100.1	103
2003 Q1	102.8	105.9	102.1	103.5	102.0	102
Q2	100.4	105.0	100.9	102.0	102.6	101
Q3	98.4	102.8	101.6	101.0	102.7	102
Q4	97.3	100.2	99.5	99.1	101.7	103
2004 Q1	96.4	100.2	96.1	97.5	104.3	102
Q2	95.1	97.3	97.1	96.5	99.7	102
Q3	96.3	97.4	98.8	97.6	102.1	103
Q4	95.6	95.2	98.0	96.4	103.7	103
2005 Q1	97.9	97.0	98.6	97.9	103.1	104
Q2	96.8	96.8	97.6	97.1	101.7	104

1 Chained volume measure: reference year 2002.
2 Classes 64-65 excluding activity headings 6510 and 6520, retail distribution of motor vehicles and parts, and filling stations.

3 Including quarterly alignment adjustment. For details of adjustments see notes section in the Sector and Financial Accounts article in *UK Economic Accounts.*
Source: Office for National Statistics; Enquiries Columns 1-6 020 7533 6264

Inventory ratios

chained volume measures,
seasonally adjusted
(reference 2002 = 100)

Ratio of manufacturers'
inventories of
finished goods/production

Index of
manufacturing
production

Volume of
retail sales

Ratio of
retail inventories/
retail sales

Gross value added,
chained volume index
at basic prices

Ratio of
total inventories/GVA
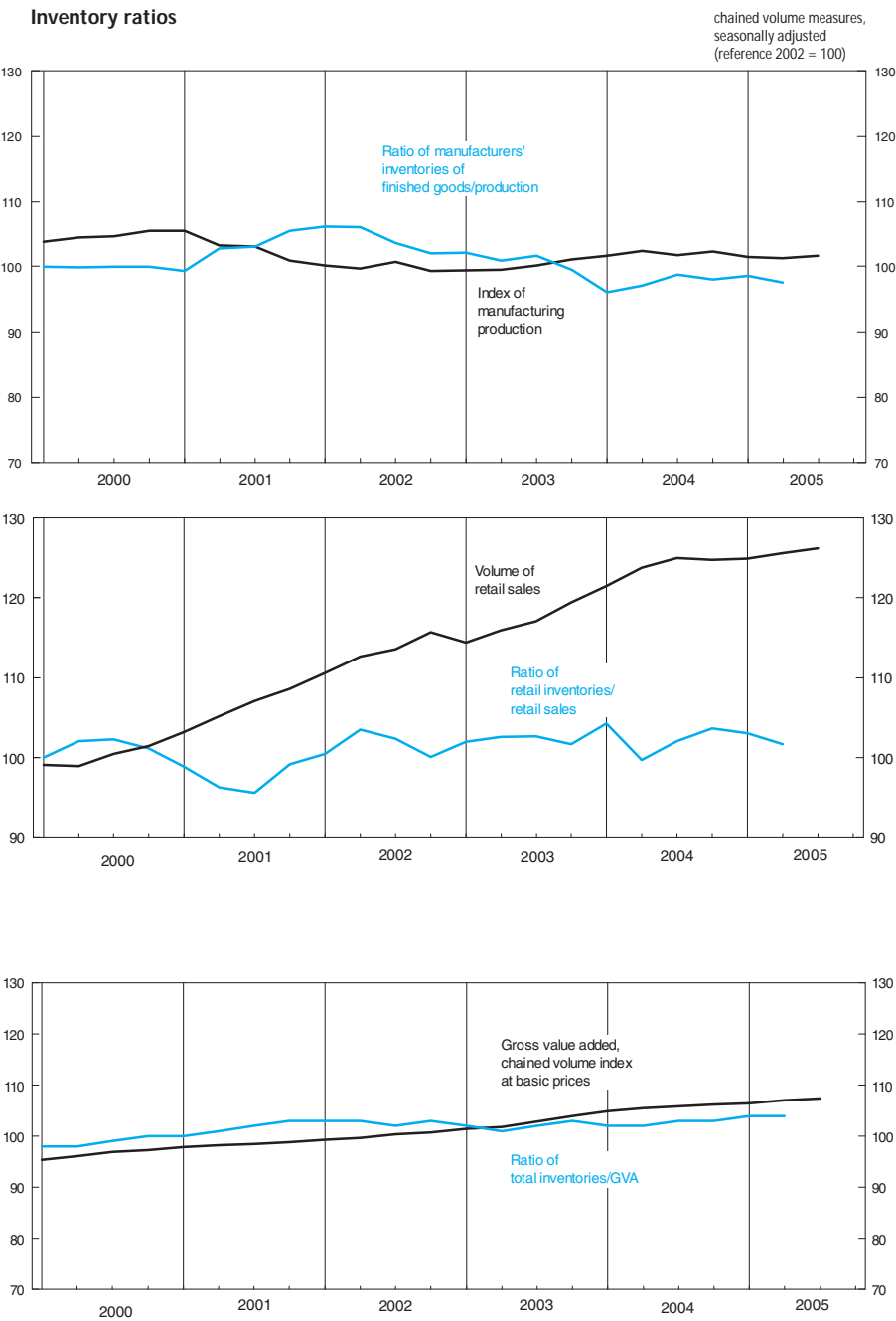
5.8 Retail sales, new registrations of cars and credit business (Great Britain)

	Value of retail sales per week: total (average 2000=100)[1,2]	Volume of retail sales per week+(average 2000=100)[1,2]								New registrations of cars (NSA, thousands)[5]	Total consumer credit: Net lending (£ million)[3,4]	of which	
		All retailers	Predominantly food stores	Predominantly non-food stores					Non-store and repair			Credit cards[6]	Other[6]
				Total	Non-specialist stores	Textile, clothing and footwear	Household goods stores	Other stores					
Sales in 2000 £ million	*207 149*	*207 149*	*89 041*	*106 359*	*18 781*	*27 880*	*27 699*	*31 999*	*11 749*				
Annual													
	EAQV	EAPS	EAPT	EAPV	EAPU	EAPX	EAPY	EAPW	EAPZ	BCGT	RLMH	VZQX	VZQY
2001	105.9	106.1	104.1	107.8	106.0	109.4	109.8	105.7	106.0	2 577.5	17 702[†]	6 283	11 504[†]
2002	111.1	112.7	108.2	116.4	110.4	121.0	117.9	114.7	113.2	2 682.0	21 172	7 620	13 611
2003	114.0	116.6	111.8	121.5	113.7	128.9	123.0	118.4	107.5	2 646.2	20 253	8 908	11 510
2004	119.2	123.6	116.4	130.2	117.7	139.0	131.5	128.8	117.7	2 598.8	22 992	9 964	13 020
Quarterly													
2001 Q1	102.9	103.2	102.8	103.8	104.4	105.0	105.9	100.5	100.4	704.2	3 270	1 353	2 121
Q2	105.4	105.2	103.7	106.5	106.0	107.1	109.6	103.6	105.8	617.7	4 532	1 698	2 772
Q3	107.0	107.1	104.6	108.9	106.7	110.7	110.1	107.7	110.1	725.6	4 209[†]	1 228	2 980[†]
Q4	108.1	108.6	105.5	111.1	107.5	113.9	112.9	109.1	108.6	530.0	5 691	2 004	3 631
2002 Q1	109.9	110.6	106.7	114.5	108.8	118.4	115.0	114.2	104.7	758.7	4 943	1 952	3 103
Q2	111.1	112.7	108.0	116.7	109.3	120.6	117.1	117.2	111.5	650.0	4 695	1 677	2 959
Q3	111.7	113.6	109.0	116.9	111.5	122.2	118.1	114.4	118.3	744.6	6 109	2 047	4 017
Q4	113.5	115.7	111.0	119.1	113.1	124.2	120.7	116.6	121.3	528.7	5 425	1 944	3 532
2003 Q1	112.4	114.4	110.0	118.9	110.8	126.2	118.8	117.4	107.6	737.6	4 919	2 216	2 754
Q2	113.3	115.9	111.7	120.4	112.5	127.9	122.6	116.6	106.5	642.7	5 572	2 540	3 003
Q3	114.6	117.1	112.6	122.1	114.0	130.4	123.7	118.2	106.2	742.8	5 136	2 200	2 943
Q4	116.3	119.4	113.5	125.3	117.1	132.2	126.7	122.8	110.1	523.1	4 626	1 952	2 810
2004 Q1	117.9	121.5	114.5	128.3	115.9	137.2	128.8	127.2	113.5	762.2	5 906	2 403	3 351
Q2	119.7	123.8	116.1	130.8	118.9	139.8	131.1	129.7	118.9	629.8	5 808	2 483	3 322
Q3	120.3	125.0	117.3	132.0	119.6	140.3	134.1	130.3	119.1	709.9	5 970	2 680	3 332
Q4	119.9	124.8	117.7	131.3	118.2	140.8	132.8	129.4	120.4	496.9	5 308	2 398	3 015
2005 Q1	119.8	124.9	118.9	130.2	120.1	141.2	130.9	125.9	122.1	697.9	5 918	2 325	3 446
Q2	120.4	125.6	119.1	131.2	116.9	144.3	130.3	128.8	125.7	594.4	4 409	1 406	3 003
Q3	120.6	126.2	119.8[†]	132.2	117.1	143.9[†]	130.8[†]	132.2[†]	120.4[†]	677.1	3 460	1 245	2 311
Monthly													
2004 Jan	117.6	120.8	113.9	127.5	115.1	136.8	127.6	126.6	112.3	199.6	1 952[†]	724[†]	1 228[†]
Feb	117.7	121.2	114.5	127.8	116.4	135.9	128.8	126.6	112.0	92.3	1 972	567	1 405
Mar	118.2	122.3	114.9	129.2	116.2	138.6	129.7	128.2	115.7	470.3	1 938	1 226	712
Apr	119.0	122.8	115.3	129.9	118.1	139.6	130.1	128.2	115.0	191.1	1 735	819	916
May	119.8	123.9	116.2	130.8	119.9	140.7	130.5	128.9	120.1	197.6	1 822	688	1 134
Jun	120.2	124.5	116.7	131.5	118.7	139.1	132.3	131.6	121.0	241.1	2 219	932	1 287
Jul	119.7	124.0	116.3	131.1	118.3	137.0	134.2	130.8	119.1	188.2	1 929	942	987
Aug	120.1	124.7	117.4	131.7	120.9	142.1	132.9	127.9	117.0	87.3	2 223	955	1 268
Sep	121.0	125.9	118.0	133.1	119.7	141.6	135.0	131.8	120.8	434.4	1 991	873	1 117
Oct	120.3	125.1	117.9	131.7	118.5	141.6	132.6	130.1	119.2	171.8	1 796	799	998
Nov	120.7	125.7	118.3	132.4	120.0	142.1	134.7	129.4	120.1	175.6	1 785	807	978
Dec	118.9	124.0	117.2	130.0	116.6	139.1	131.4	128.8	121.5	149.5	1 702	610	1 092
2005 Jan	119.9	125.0	119.6	129.8	119.5	139.1	133.2	124.6	122.7	180.0	2 324	1 072	1 252
Feb	119.8	125.0	118.7	130.2	119.2	142.4	130.3	126.0	126.1	77.5	1 720	700	1 020
Mar	119.8	124.6	118.5	130.5	121.3	142.0	129.4	126.7	118.4	440.4	1 793	687	1 106
Apr	120.0	125.4	118.7	130.5	117.0	143.5	129.4	128.1	129.7	178.9	1 292	319	972
May	119.6	124.9	118.6	130.4	116.0	143.4	129.8	128.1	123.2	189.2	1 747	708	1 039
Jun	121.2	126.4	119.7	132.3	117.7	145.7	131.4	129.9	124.4	226.3	1 310	346	964
Jul	120.5	125.7	120.0[†]	131.0[†]	115.3[†]	143.1[†]	129.9[†]	130.7[†]	121.4	175.3	1 186	345	841
Aug	120.5	126.0[†]	118.7	132.4	117.7	143.6	130.7	132.9	122.4[†]	84.2	1 301	468	833
Sep	120.8	126.8	120.5	133.0	118.2	144.7	131.7	132.8	117.9	417.6	1 211	439	772
Oct	121.0	127.0	120.7	133.3	118.6	144.3	131.9	133.5	117.9	..	1 273	617	657

1 Great Britain only. The motor trades are excluded. Information for periods earlier than those shown is available from ONS Newport (tel 01633 812509).
2 The retail sales index has been rebased using detailed information from the 2000 Annual Business inquiry. Further information is available via the National Statistics website: **www.statistics.gov.uk**
3 Net lending equals changes in amounts outstanding adjusted to remove distortions arising from revaluations of debt such as write-offs.

4 Covers all institutions providing finance for consumers; including loans by banks on personal accounts and on bank credit cards and charge cards, by insurance companies, retailers and other specialist lenders, but excluding loans for house purchase.
5 Seasonally adjusted data are not published in *Economic Trends*. Data up to 1998 are published in the *Economic Trends Annual Supplement*.
6 See Table 6.6, note 2.

Sources: Office for National Statistics;
Enquiries Columns 1-9 01633 812713; Columns 12-14 01633 812782.;
Department for Transport;
Enquiries Column 10,11 020 7944 3077.

Volume of total retail sales (excluding motor trades)   Weekly average 2000=100

Quarterly average

Consumer credit: Net lending   £ million

Other

Credit
cards
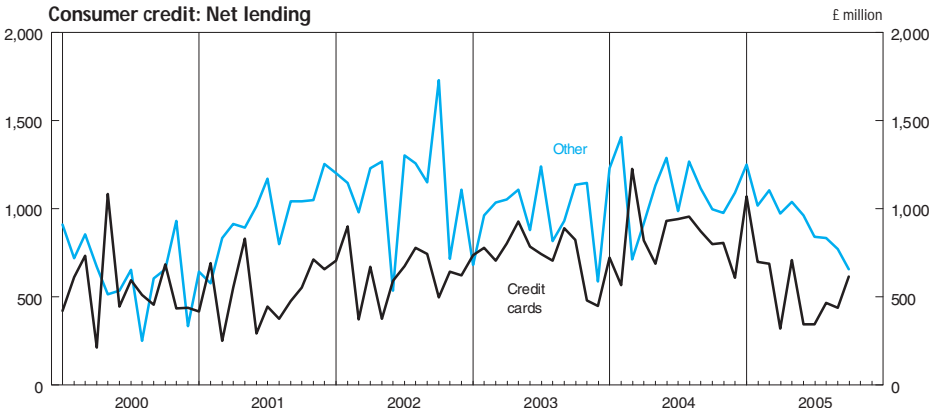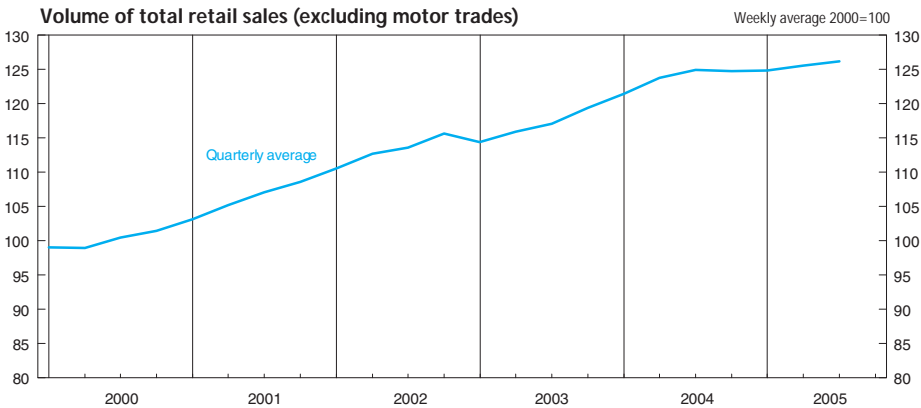
5.9 Inland energy consumption: primary fuel input basis

Million tonnes of oil equivalent

Seasonally adjusted and temperature corrected[7] (annualised rates)

	Coal[1]	Petroleum[2]	Natural gas[3]	Nuclear	Wind and natural flow Hydro[4]	Net imports[6]	Total
Annual				Primary electricity[5]			
	FDAI	FDAJ	FDAK	FDAL	FDAM	FDAW	FDAH
2000	40.0	77.8	98.6	19.7	0.5	1.2	237.8
2001	43.1	76.6	96.7	20.8	0.4	0.9	238.6
2002	40.0	75.3	98.7	20.0	0.5	0.7	235.3
2003	42.9	74.9	97.7	20.0	0.4	0.2	236.1
2004	42.0	77.4	100.0	18.1	0.6	0.6	238.9
Quarterly							
2000 Q1	38.9	81.3	110.8	20.1	0.6	1.1	252.8
Q2	40.6	74.4	95.3	19.8	0.4	1.3	231.8
Q3	40.2	77.8	85.4	19.4	0.5	1.3	224.5
Q4	40.5	77.6	103.1	19.4	0.5	1.2	242.2
2001 Q1	45.6	75.8	108.8	19.9	0.3	1.1	251.5
Q2	44.6	73.3	93.1	19.0	0.4	0.9	231.3
Q3	42.5	79.4	84.6	21.8	0.5	0.9	229.7
Q4	39.8	77.8	100.6	22.6	0.5	0.7	242.0
2002 Q1	42.1	77.9	108.2	21.2	0.6	0.6	250.6
Q2	35.8	76.3	95.9	20.0	0.7	1.0	229.6
Q3	38.4	76.2	88.3	19.9	0.5	0.2	223.5
Q4	43.6	70.8	102.6	18.9	0.4	1.1	237.4
2003 Q1	42.9	72.7	108.1	21.0	0.3	0.3	245.3
Q2	44.9	78.5	92.7	20.6	0.5	0.1	237.3
Q3	41.9	73.8	85.6	19.7	0.5	−0.1	221.4
Q4	41.8	74.6	104.5	18.6	0.4	0.4	240.3
2004 Q1	43.5	71.0	111.2	20.2	0.5	0.4	246.8
Q2	40.6	79.4	97.2	17.2	0.6	0.6	235.5
Q3	41.0	77.1	86.8	17.9	0.8	0.7	224.4
Q4	42.9	82.1	105.1	17.3	0.6	0.8	248.8[†]
2005 Q1	45.2	80.0	108.3[†]	19.3	0.5	0.5	253.8
Q2	40.4	74.9[†]	93.3[†]	18.3	0.6	0.7	228.3

Percentage change, quarter on corresponding quarter of previous year

Quarterly							
	FDAP	FDAQ	FDAR	FDAS	FDAT	FDAX	FDAO
2000 Q1	3.9	−0.2	5.4	−13.8	12.1	−10.6	1.5
Q2	7.7	−5.0	5.4	−14.6	−25.9	1.9	0.2
Q3	5.1	3.5	1.3	−9.9	−12.3	12.9	1.6
Q4	3.1	2.0	−0.2	−7.7	6.2	−5.1	0.4
2001 Q1	17.2	−6.7	−1.8	−1.0	−43.8	–	−0.5
Q2	9.9	−1.5	−2.3	−4.2	−9.6	−30.3	−0.3
Q3	5.7	2.1	−1.0	12.8	4.7	−29.0	2.3
Q4	−1.6	0.3	−2.4	16.6	6.1	−45.0	−0.1
2002 Q1	−7.7	2.7	−0.5	6.8	73.8	−43.7	−0.4
Q2	−19.8	4.1	3.0	5.6	73.5	5.5	−0.7
Q3	−9.6	−4.1	4.4	−8.8	11.4	−75.5	−2.7
Q4	9.4	−9.0	2.1	−16.3	−32.7	67.6	−1.9
2003 Q1	1.9	−6.7	–	−1.3	−42.4	−56.2	−2.1
Q2	25.5	2.9	−3.3	2.9	−29.6	−89.0	3.4
Q3	9.1	−3.1	−3.0	−0.9	−13.6	–	−0.9
Q4	−4.0	5.3	1.8	−1.6	−2.7	−59.6	1.2
2004 Q1	1.5	−2.3	2.8	−3.9	58.6	61.0	0.6
Q2	−9.7	1.1	4.9	−16.5	16.7	–	−0.8
Q3	−2.0	4.5	1.3	−9.1	66.1	–	1.3
Q4	2.5	10.1	0.6	−7.3	64.6	92.5	3.5
2005 Q1	3.8	12.7	−2.6[†]	−4.1	−7.0	8.8	2.8
Q2	−0.4	−5.6[†]	−4.0[†]	6.5	1.6	26.1	−3.1

1 Includes solid renewable sources (wood, straw, waste), and net foreign trade and stock changes in other solid fuels.
2 Excludes non-energy use.
3 Includes gas used during production, colliery methane, landfill gas and sewage gas. Excludes gas flared or re-injected and non energy-use of gas.
4 Includes generation by solar PV. Excludes generation from pumped storage stations.
5 Not temperature corrected.
6 Not seasonally adjusted.
7 For details of temperature correction see DTI energy statistics website at **www.dti.gov.uk/energy/inform/dukes/dukes2003/01longterm.pdf**

Source: Department of Trade and Industry; Enquiries 020 7215 2698

Inland energy consumption   Million tonnes of oil equivalent, seasonally adjusted

Natural gas

Petroleum

Coal

Nuclear and
Hydro-electricity

2000   2001   2002   2003   2004   2005
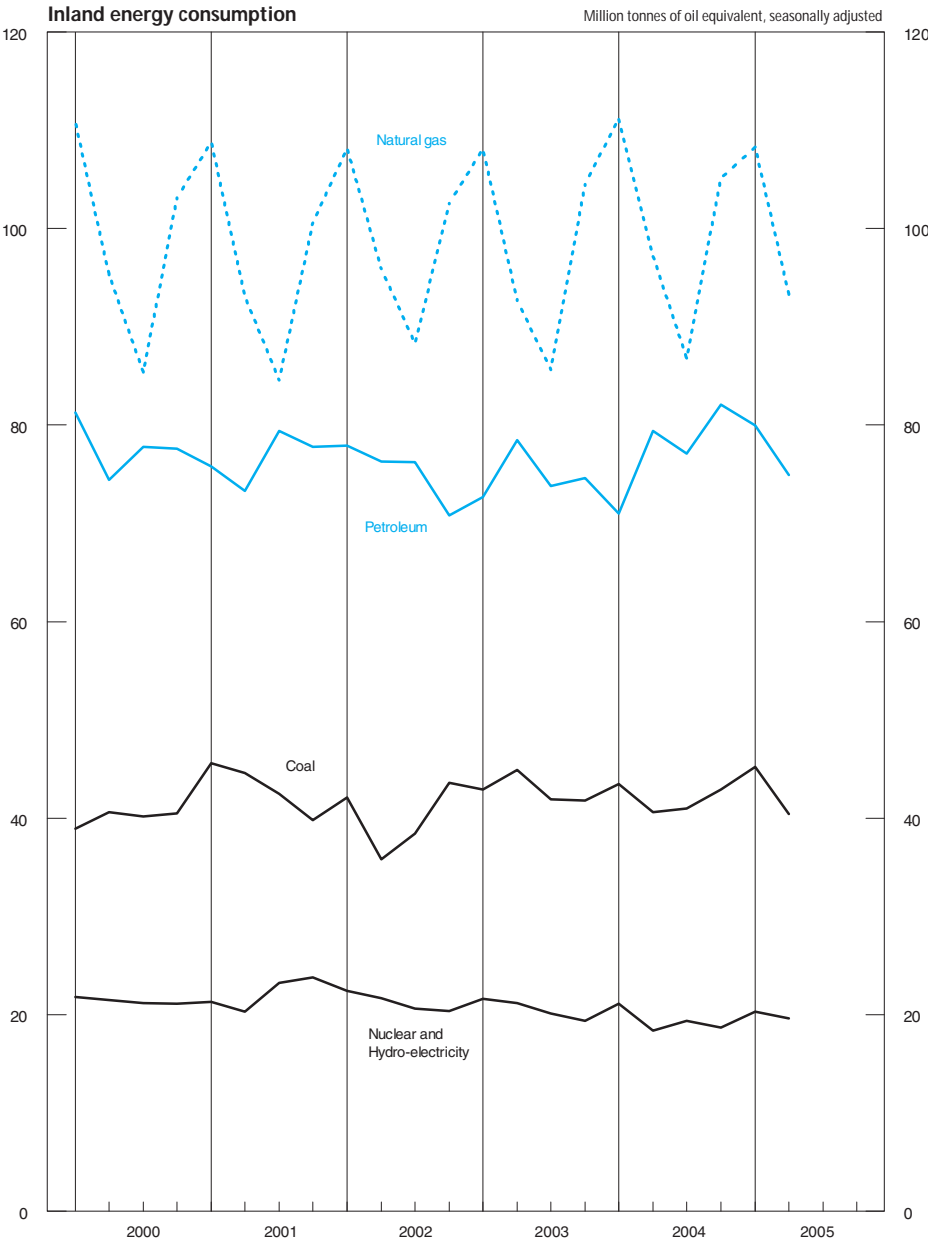
6.1 Sterling exchange rates and UK reserves[4]

Not seasonally adjusted

	Sterling exchange rate against major currencies[1]								UK international reserves[3] at end of period (£ million)	Sterling exchange rate index 1990 = 100
	Japanese yen	US dollar	Swiss franc	Euro[2]	Danish kroner	Norwegian kroner	Swedish kronor	Hong Kong dollar		
	AJFO	AUSS	AJFD	THAP	AJFK	AJFJ	AJFI	AJFU	THFE	AGBG
Annual										
2001	174.90	1.4400	2.430	1.6087	11.987	12.944	14.886	11.2335	27 773	105.8
2002	187.84	1.5026	2.334	1.5909	11.821	11.953	14.570	11.7265	26 566	106.0
2003	189.34	1.6346	2.197	1.4456	10.742	11.562	13.189	12.7337	25 724	100.2
2004	198.10	1.8320	2.276	1.4739	10.965	12.342	13.453	14.2707	25 908	104.1
Quarterly										
2001 Q1	172.26	1.4584	2.424	1.5814	11.7988	12.965	14.230	11.3765	30 457	104.5
Q2	174.19	1.4208	2.487	1.6280	12.1436	13.039	14.847	11.0866	30 632	106.4
Q3	174.67	1.4380	2.432	1.6152	12.0231	12.928	15.203	11.2092	29 662	106.1
Q4	178.45	1.4428	2.375	1.6111	11.9887	12.845	15.264	11.2548	27 773	106.1
2002 Q1	188.79	1.4260	2.396	1.6263	12.0863	12.700	14.895	11.1230	28 053	106.9
Q2	185.29	1.4630	2.329	1.5923	11.8379	11.956	14.564	11.4015	28 623	105.3
Q3	184.85	1.5495	2.305	1.5747	11.6973	11.662	14.538	12.0871	27 950	105.7
Q4	192.42	1.5720	2.304	1.5716	11.6733	11.494	14.285	12.2547	26 566	106.0
2003 Q1	190.67	1.6017	2.189	1.4937	11.0987	11.313	13.709	12.5030	26 388	102.3
Q2	191.90	1.6194	2.163	1.4256	10.5851	11.344	13.032	12.6352	25 199	99.1
Q3	189.14	1.6108	2.209	1.4300	10.6264	11.794	13.103	12.5605	26 954	99.2
Q4	185.64	1.7065	2.228	1.4334	10.6591	11.796	12.913	13.2305	25 724	100.2
2004 Q1	197.07	1.8391	2.306	1.4708	10.9571	12.703	13.507	14.2983	25 266	104.1
Q2	198.21	1.8052	2.305	1.4992	11.1529	12.387	13.712	14.0831	25 178	105.2
Q3	199.95	1.8189†	2.285	1.4877	11.0633	12.478	13.627	14.1861	25 382	104.8
Q4	197.18	1.8648†	2.206	1.4388	10.6958	11.798	12.966	14.5080	25 908	102.4
2005 Q1	197.53	1.8904	2.234	1.4424	10.7362	11.889	13.092	14.7449	25 801	102.9
Q2	199.56	1.8559	2.276	1.4744	10.9788	11.863	13.572	14.4506	26 844	104.3
Q3	198.44	1.7844	2.273	1.4635	10.9160	11.534	13.709	13.8685	26 728	102.9
Monthly										
2003 Jul	192.72	1.6242	2.209	1.4277	10.613	11.828	13.130	12.6671	25 785	99.4
Aug	189.42	1.5950	2.200	1.4286	10.617	11.800	13.186	12.4395	26 550	99.0
Sep	185.29	1.6131	2.219	1.4338	10.649	11.755	12.994	12.5590	26 954	99.2
Oct	183.76	1.6787	2.220	1.4334	10.651	11.807	12.917	12.9962	26 131	99.8
Nov	184.47	1.6901	2.250	1.4426	10.729	11.832	12.973	13.1201	26 617	100.4
Dec	188.70	1.7507	2.214	1.4246	10.602	11.749	12.850	13.5923	25 724	100.3
2004 Jan	193.82	1.8234	2.262	1.4447	10.760	12.425	13.203	14.1598	25 329	102.4
Feb	199.16	1.8673	2.324	1.4774	11.008	12.983	13.566	14.5165	24 689	104.8
Mar	198.22	1.8267	2.332	1.4890	11.092	12.701	13.752	14.2349	25 266	105.0
Apr	194.04	1.8005	2.337	1.5022	11.182	12.458	13.775	14.0381	25 377	105.2
May	200.69	1.7876	2.293	1.4894	11.082	12.222	13.594	13.9374	24 819	104.6
Jun	199.91	1.8275	2.285	1.5050	11.189	12.482	13.767	14.2499	25 178	105.8
Jul	201.66	1.8429	2.294	1.5023	11.170	12.730	13.818	14.3740	24 579	105.9
Aug	200.87	1.8216	2.297	1.4933	11.105	12.437	13.725	14.2077	25 189	105.2
Sep	197.32	1.7922	2.265	1.4676	10.916	12.268	13.337	13.9777	25 382	103.3
Oct	196.54	1.8065	2.229	1.4455	10.751	11.895	13.093	14.0707	25 557	102.2
Nov	194.76	1.8603	2.177	1.4311	10.635	11.658	12.877	14.4662	25 757	101.7
Dec	200.23	1.9275	2.212	1.4401	10.705	11.841	12.928	14.9890	25 908	103.2
2005 Jan	193.97	1.8764	2.217	1.4331	10.664	11.783	12.979	14.6292	25 840	102.1
Feb	198.10	1.8871	2.248	1.4499	10.791	12.064	13.172	14.7185	26 080	103.3
Mar	200.51	1.9078	2.237	1.4440	10.753	11.821	13.126	14.8801	25 801	103.2
Apr	203.34	1.8960	2.267	1.4652	10.916	11.980	13.433	14.7865	26 103	104.4
May	197.70	1.8538	2.258	1.4611	10.877	11.805	13.428	14.4439	26 595	103.6
Jun	197.64	1.8179	2.302	1.4952	11.132	11.805	13.854	14.1362	26 844	104.9
Jul	195.99	1.7509	2.267	1.4547	10.850	11.523	13.717	13.6141	25 950	102.1
Aug	198.48	1.7943	2.266	1.4592	10.885	11.551	13.631	13.9444	25 437	102.8
Sep	200.86	1.8081	2.287	1.4761	11.009	11.527	13.779	14.0356	26 728	103.9
Oct	202.62	1.7640	2.273	1.4674	10.950	11.490	13.835	13.6823	..	103.1

1 Average of daily Telegraphic Transfer rates in London.
2 Prior to January 1999, a synthetic Euro has been calculated by geometrically averaging the bilateral exchange rates of the 11 Euro-area countries using "internal weights" based on each country's share of the extra Euro-area trade.

3 International reserves data are all valued at end-period market prices and exchange rates. They additionally include other reserve assets such as repos (sale and purchase agreements) and derivatives. Full details are shown in Table 1.2l of *Financial Statistics*.
4 These figures fall outside the scope of National Statistics.

Source: Bank of England: Enquiries 020 7601 4342

Sterling exchange rates

Relates to the £
log scale

Japanese yen

Swedish Kronor

Danish Kroner

Swiss franc

Euro

US dollar

Sterling exchange rate index

Average 1990=100
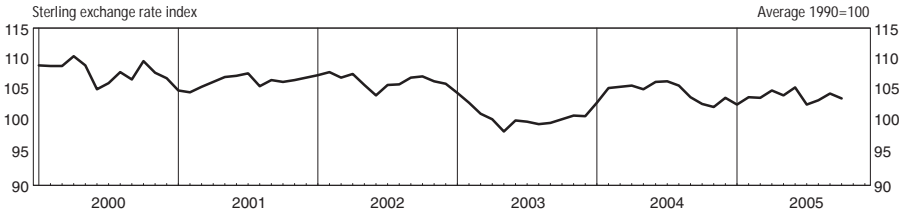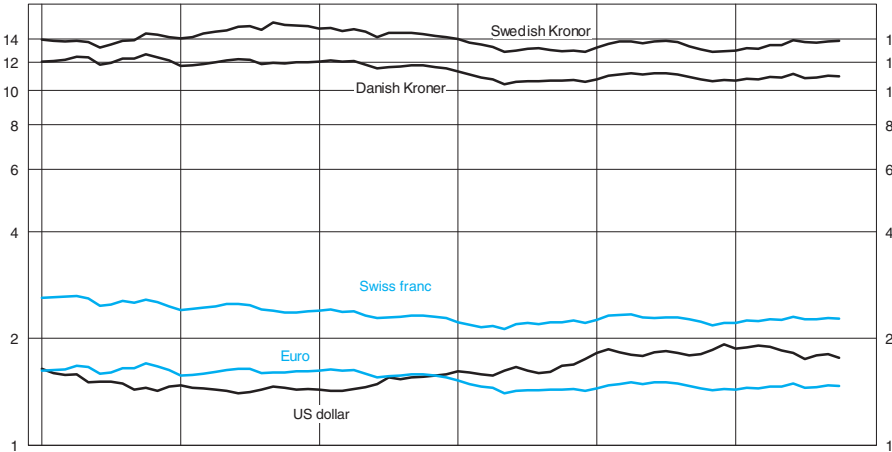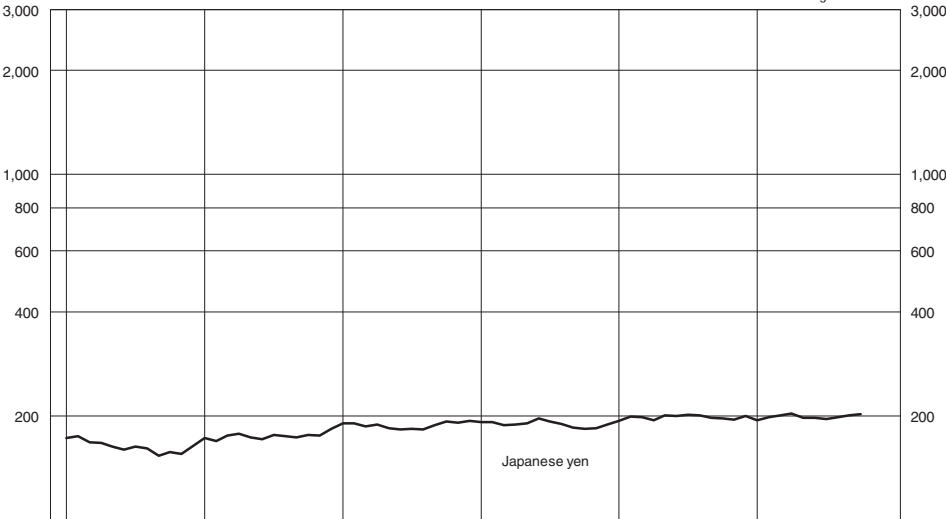
6.2 Monetary aggregates[1,3]

	M0				M4			
	Amount outstanding[2] (NSA)				Amount outstanding (NSA)			
	£ million	Annual percentage change	Amount outstanding (£ million) +	Velocity of circulation: ratio	£ million	Annual percentage change	Amount outstanding (£ million) +	Velocity of circulation: ratio
Annual								
	AVAD	VQNB	AVAE	AVAM	AUYM	VQLC	AUYN	AUYU
2001	37 319	8.0	35 097[†]	29.75	942 433	6.7	943 666[†]	1.09
2002	39 540	6.0	37 230	28.98	1 008 678	7.3	1 009 880	1.08
2003	42 317	7.0	39 931	28.50[†]	1 081 121	7.3	1 082 344	1.07
2004	44 466	5.1	42 249	28.27	1 179 089	9.3	1 180 401	1.03
Quarterly								
						VQRY		
2001 Q1	32 489	8.4	33 114[†]	29.92	905 800	8.3	905 449[†]	1.10
Q2	32 896	6.5	33 284	30.01	921 571	7.6	917 966	1.10
Q3	33 797	6.2	33 941	29.67	937 071	8.4	939 726	1.08
Q4	37 319	8.0	35 097	29.40	942 433	6.7	943 666	1.08
2002 Q1	35 157	8.2	35 549	29.06	955 196	5.7	955 342	1.09
Q2	36 225	10.1	36 644	29.12	975 699	6.1	971 352	1.09
Q3	36 511	8.0	36 675	28.95[†]	989 473	5.9	992 481	1.08
Q4	39 540	6.0	37 230	28.78	1 008 678	7.3	1 009 880	1.07
2003 Q1	37 184	5.8	37 897	28.84	1 020 595	7.1	1 021 075	1.07
Q2	38 403	6.0	38 910	28.36	1 047 982	7.9	1 042 952	1.06[†]
Q3	39 348	7.8	39 515	28.42	1 051 120	6.6	1 054 479	1.07
Q4	42 317	7.0	39 931	28.37	1 081 121	7.3	1 082 344	1.06
2004 Q1	39 812	7.1	40 590	28.43	1 101 901	7.9	1 102 592	1.05
Q2	41 109	7.0	41 419	28.25	1 133 485	8.0	1 127 755	1.04
Q3	41 748	6.1	41 803	28.21	1 148 459	9.0	1 152 340	1.03
Q4	44 466	5.1	42 249	28.21	1 179 089	9.3	1 180 401	1.02
2005 Q1	42 395	6.5	42 672	28.05	1 216 926	10.6	1 217 714	1.00
Q2	42 656	3.8	42 981	28.17	1 251 251[†]	10.6	1 244 747	0.98
Q3	43 969	5.3	44 061	..	1 275 136	11.4	1 279 635	..
Monthly								
						VQLC		
2003 Jul	38 938	8.0	39 188[†]	..	1 036 608	7.3	1 038 494[†]	..
Aug	39 579	7.9	39 402	..	1 040 203	6.2	1 039 255	..
Sep	39 348	7.8	39 515	..	1 051 120	6.6	1 050 845	..
Oct	39 416	7.3	39 695	..	1 054 713	6.4	1 053 986	..
Nov	40 149	8.0	39 992	..	1 070 453	7.1	1 068 081	..
Dec	42 317	7.0	39 931	..	1 081 121	7.3	1 080 018	..
2004 Jan	40 222	8.0	40 190	..	1 080 398	8.7	1 089 838	..
Feb	39 448	6.8	40 255	..	1 087 970	8.4	1 096 201	..
Mar	39 812	7.1	40 590	..	1 101 901	7.9	1 099 297	..
Apr	40 799	5.7	40 778	..	1 109 089	7.6	1 106 245	..
May	40 668	4.7	41 055	..	1 121 331	8.3	1 117 954	..
Jun	41 109	7.0	41 419	..	1 133 485	8.1	1 125 108	..
Jul	41 115	5.6	41 357	..	1 133 394	9.2	1 133 484	..
Aug	41 489	4.8	41 402	..	1 143 082	9.8	1 143 949	..
Sep	41 748	6.1	41 803	..	1 148 459	9.0	1 147 954	..
Oct	41 721	5.8	42 002	..	1 158 196	9.6	1 158 794	..
Nov	42 222	5.2	42 053	..	1 166 521	8.9	1 165 475	..
Dec	44 466	5.1	42 249	..	1 179 089	9.3	1 175 026	..
2005 Jan	42 700	6.2	42 460	..	1 177 416	9.2	1 189 349	..
Feb	41 757	5.9	42 622	..	1 188 970	9.5	1 199 830	..
Mar	42 395	6.5	42 672	..	1 216 926	10.6	1 213 566	..
Apr	42 188	3.4	42 718	..	1 223 991	10.5	1 222 055	..
May	42 426	4.3	42 811	..	1 242 306	11.1	1 239 711	..
Jun	42 656	3.8	42 981	..	1 251 251[†]	10.6	1 241 371	..
Jul	43 127	4.9	43 362	..	1 256 010	11.1	1 255 598	..
Aug	44 078	6.2	43 931	..	1 254 261	9.9[†]	1 255 615	..
Sep	43 969	5.3	44 061	..	1 275 136	11.4	1 272 664	..

1 A fuller range of monetary aggregates is published monthly in the ONS publication *Financial Statistics*.

2 The monthly figures for M0 give the average of the amounts outstanding each Wednesday during the calendar month.

3 These figures fall outside the scope of National Statistics .

Source: Bank of England; Enquiries 020 7601 5467

Monetary aggregates

£ billion   Percent

M4, Amount
outstanding,
NSA, (Left
Hand Scale)

M4, Amount outstanding,
NSA, Annual percentage
change (Right Hand Scale)

£ billion   Percent

M0, Amount
outstanding, NSA
(Left Hand Scale)

M0, Amount outstanding ,
NSA, Annual percentage
change (Right Hand Scale)
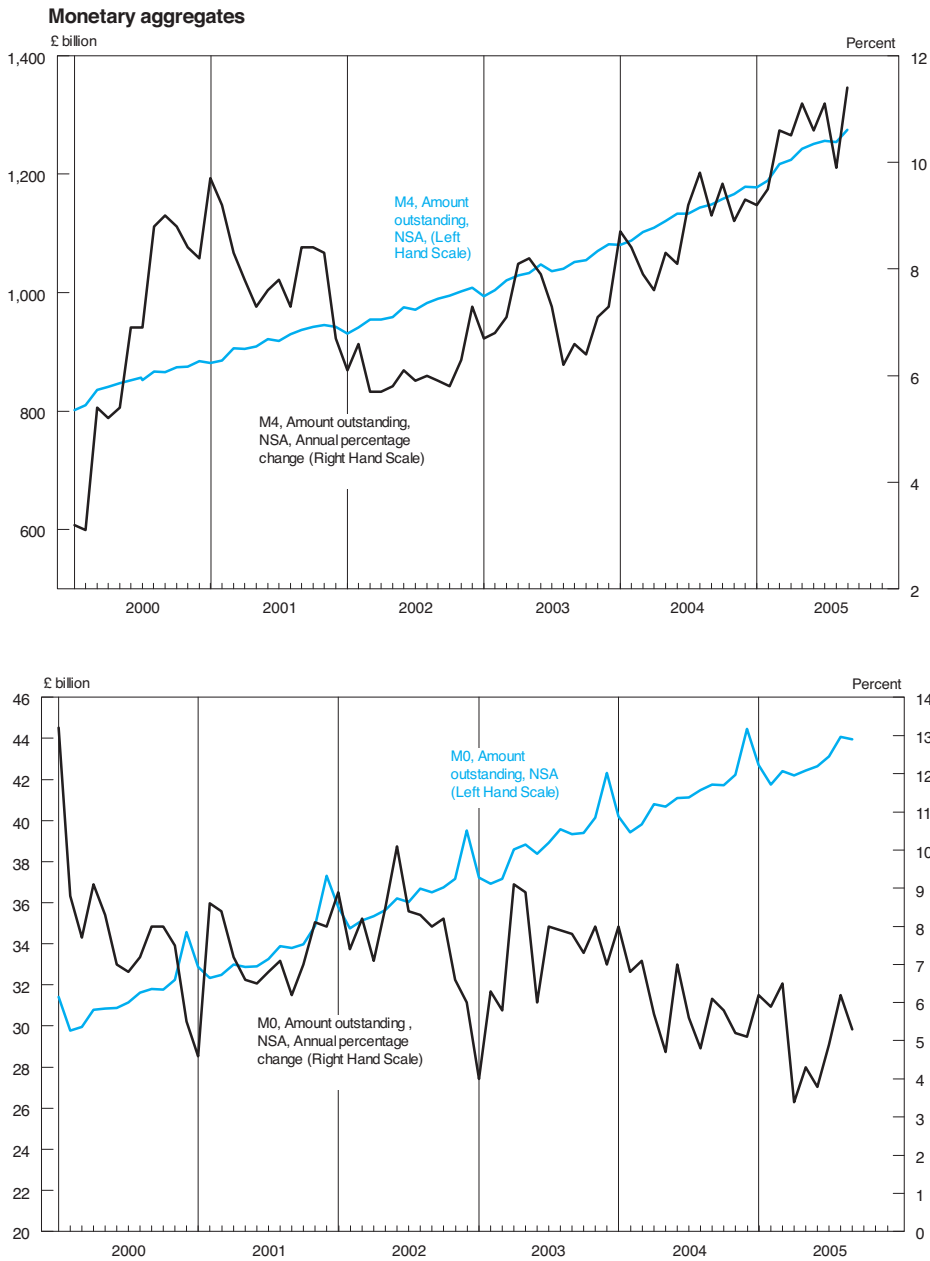
6.3 Counterparts to changes in money stock M4[1,4]

£ million, not seasonally adjusted

	Public Sector Net Cash Require-ment+[3]	Purchases by the M4[2] private sector of:		External and foreign currency financing of public sector		Public sector contribution M4	Banks' and Building Soc-ieties' sterling lending to the M4 private sector	External and foreign currency trans-actions of UK banks and building soc-ieties	Net non-deposit sterling liabili-ties of UK banks and building soc-ieties	External and foreign currency counter-parts	M4
		Central government debt	Other public sector debt	Purchase of British govern-ment stocks by overseas sector	Other						
	1	2	3	4	5	6	7	8	9	10	11
	ABEN	RCMD	AVBV	AVBZ	AQGA	AVBF	AVBS	AVBW	AVBX	VQLP	AUZI
Annual											
2001	–2 756	7 532	191	318	4 194	8 842	82 446	–21 607†	–10 815†	–17 732†	58 868
2002	18 286	–9 118	–110	–897	1 588	11 543	107 655	–25 113	–25 149	–22 627	68 936
2003	38 857	–31 990	–473	10 378	–3 067	–7 048	127 712	–27 161	–20 341	–40 602	73 163
2004	41 406	–30 713	–1 257	2 235	–158	7 042	156 087	4 435	–67 477	2 042	100 087
Quarterly											
2001 Q2	6 413	2 980	233	4 549	1 000	6 078	21 194	–7 262†	–4 325†	–10 811†	15 685
Q3	–6 101	4 437	95	–2 931	1 287	2 648	15 710	7 221	–8 836	11 438	16 744
Q4	9 372	–3 160	131	1 056	–1 827	3 459	14 467	–13 847	1 092	–16 730	5 172
2002 Q1	–6 213	2 907	–260	–1 045	2 398	–124	24 732	–7 089	–3 172	–3 646	14 347
Q2	7 093	–4 272	101	–266	–1 001	2 188	24 507	1 613	–8 069	879	20 239
Q3	393	–2 114	93	–1 960	208	540	34 214	–8 547	–11 077	–6 379	15 131
Q4	17 013	–5 639	–44	2 374	–17	8 939	24 202	–11 090	–2 831	–13 481	19 219
2003 Q1	–332	–4 234	31	1 934	430	–6 038	21 783	2 357	–4 432	854	13 670
Q2	16 293	–8 454	–210	2 855	–2 099	2 676	34 559	–1 532	–6 969	–6 485	28 735
Q3	5 860	–10 530	–184	980	–1 222	–7 056	30 591	–2 300	–17 743	–4 501	3 492
Q4	17 036	–8 772	–110	4 609	–176	3 370	40 779	–25 686	8 803	–30 470	27 266
2004 Q1	240	–11 916	–534	978	1 670	–11 519	34 934	30 405	–33 204	31 096	20 616
Q2	11 746	–1 830	–413	2 204	–136	7 162	37 475	4 663	–16 199	2 323	33 101
Q3	7 259	–11 045	–79	125	–1 441	–5 431	51 828	–15 856	–16 348	–17 422	14 193
Q4	22 161	–5 922	–231	–1 072	–251	16 830	31 850	–14 777	–1 726	–13 955	32 177
2005 Q1	–2 522†	–4 802	–388	8 258	1 411	–14 558	31 683†	18 326	2 000	11 479	37 451†
Q2	16 559†	–6 033	–282	5 428	–302	4 514†	33 826	18 100	–19 863	12 370	36 577
Q3	8 337	755	154	12 155	–866	–3 774	52 743	–10 975	–14 000	–23 996	23 994
Monthly											
2003 Aug	3 482	–5 703	53	228	–771	–3 166	5 309	–9 972†	11 432†	–10 971†	3 603
Sep	8 464	–2 375	–3	2 091	–1 331	2 665	17 557	8 572	–17 823	5 151	10 971
Oct	–1 582	–5 265	–96	–1 161	3 016	–2 766	23 106	–21 906	5 433	–17 729	3 867
Nov	5 593	1 029	–41	7 050	–49	–518	9 928	8 850	–2 980	1 751	15 281
Dec	13 024	–4 536	28	–1 280	–3 143	6 654	7 744	–12 630	6 350	–14 492	8 118
2004 Jan	–14 395	513	–292	–786	3 019	–10 368	20 959	7 287	–18 931	11 092	–1 054
Feb	–82	–4 648	237	1 267	225	–5 536	4 713	12 060	–3 581	11 018	7 656
Mar	14 716	–7 781	–479	497	–1 574	4 386	9 263	11 057	–10 691	8 986	14 014
Apr	–2 229	–2 119	–170	–1 908	80	–2 530	10 350	6 592	–7 175	8 580	7 237
May	3 234	–1 609	–61	1 168	–68	328	8 737	3 242	325	2 006	12 631
Jun	10 741	1 898	–182	2 944	–148	9 364	18 389	–5 171	–9 349	–8 264	13 234
Jul	–6 966	–4 350	243	–947	–117	–10 243	14 260	941	–5 114	1 771	–156
Aug	3 302	2 306	–164	3 248	409	2 605	15 348	–6 241	–1 700	–9 080	10 013
Sep	10 922	–9 001	–157	–2 176	–1 733	2 208	22 219	–10 556	–9 534	–10 113	4 337
Oct	–1 531	–2 344	–61	1 345	–56	–5 337	14 820	–5 618	5 877	–7 018	9 742
Nov	9 019	188	–36	–1 944	286	11 401	2 130	–1 085	–2 775	1 145	9 671
Dec	14 673	–3 766	–134	–473	–480	10 766	14 901	–8 074	–4 828	–8 082	12 764
2005 Jan	–16 823	–4 508	6	927	1 714	–20 539	16 670	–3 695	6 033	–2 908	–1 530
Feb	669	2 050	–187	2 650	–406	–523	4 483	14 841	–7 241	11 785	11 560
Mar	13 632	–2 344	–207	4 681	103	6 504	10 530†	7 180	3 208	2 602	27 422†
Apr	–946	1 293	–281	1 939	–37	–1 909	8 526	2 701	–2 250	726	7 068
May	5 175†	–4 125	170	–677	–129	1 768	13 408	19 025	–13 644	19 573	20 557
Jun	12 331†	–3 202	–172	4 166	–135	4 655†	11 892	–3 627	–3 969	–7 929	8 951
Jul	–8 459	1 180†	112	2 820†	–552	–10 539	18 286	–2 408	–575	–5 780	4 763
Aug	4 797	2 803	110†	4 042	–160	3 507	5 028	–14 183	3 905	–18 385	–1 743
Sep	12 000	–3 228	–67	5 293	–154	3 258	29 429	5 617	–17 330	170	20 974

For most periods the relationships between the columns are as follows:
6 = 1 + 2 + 3 - 4 + 5 ; 10 = 4 + 5 + 8
11 = 1 + 2 + 3 + 7 + 9 + 10
1 A wider range of figures is published monthly in *Financial Statistics*.
2 The M4 private sector comprises all UK residents other than the public sec-tor, banks and building societies.

3 Formerly called the Public Sector Borrowing Requirement.
4 This table does not contain National Statistics data.

Source: Bank of England; 020 7601 5467

Counterparts to change in money stock M4

£ million

*Private sector other than banks and building societies
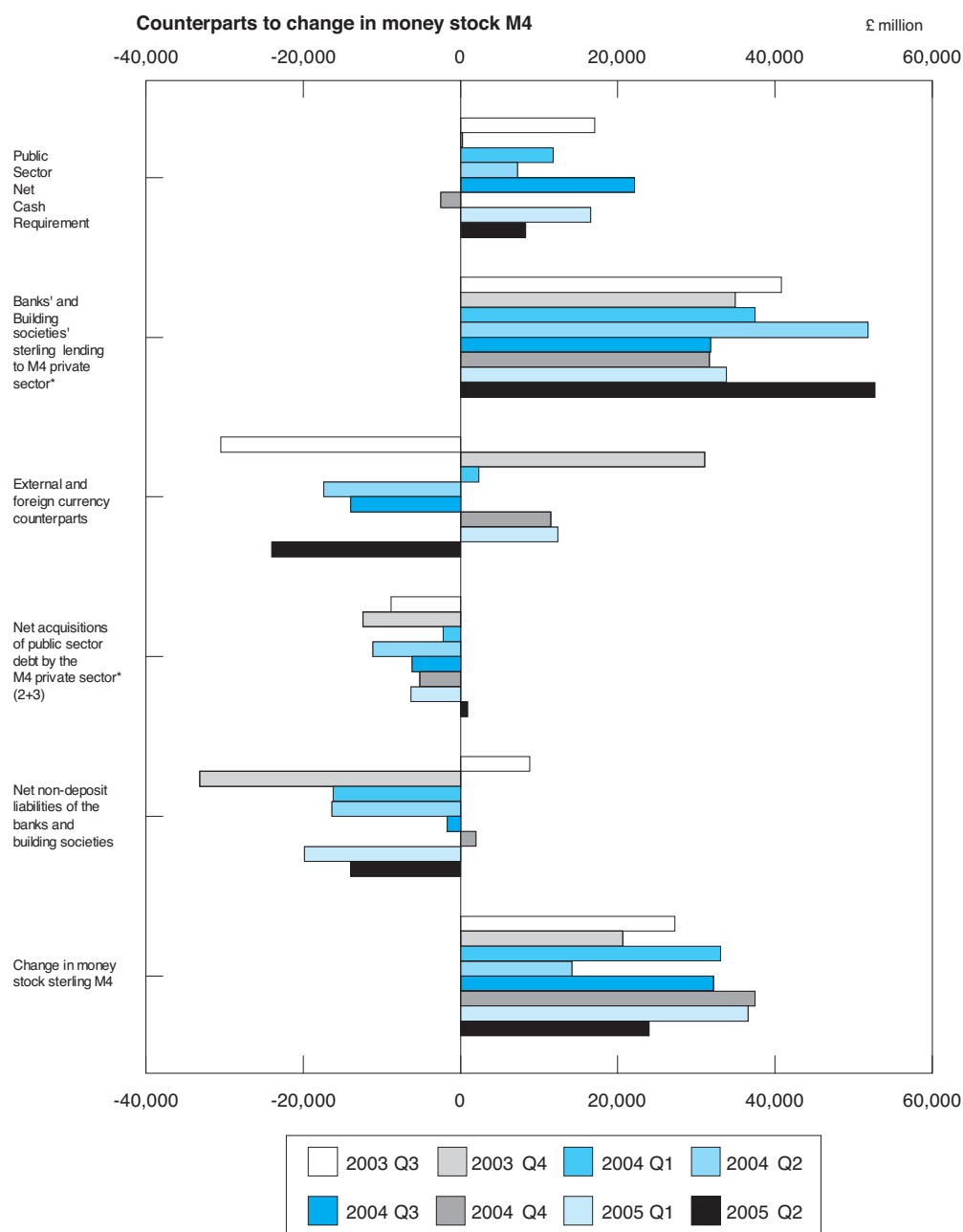
6.4 Public sector receipts and expenditure

£ million, not seasonally adjusted

| | Public sector current expenditure | | | | | | | Public sector current receipts | | | | | | | | |
	Current expenditure on goods and services	Subsidies	Net Social Benefits	Net current grants abroad	Other current grants	Interest paid to private sector and RoW	Total current expenditure	Operating surplus	Taxes on production	Taxes on income and wealth	Taxes on capital	Other Current taxes	Compulsory social contributions	Interest/dividend from private-/RoW	Rent and other current transfers	Total current receipts
Annual																
	GZSN	NMRL	ANLY	GZSI	NNAI	ANLO	ANLT	ANBP	NMYE	ANSO	NMGI	MJBC	ANBO	ANBQ	ANBS	ANBT
2002	210 654	5 266	123 288	−539	24 218	21 534	384 421	16 278	138 328	142 716	2 381	20 360	63 410	4 852	2 426	390 751
2003	231 543	6 243	130 308	−855	28 780	22 721	418 740	17 293	145 759	144 021	2 416	22 555	71 540	4 836	2 123	410 543
2004	245 922	6 779	138 562	−428	30 984	23 613	445 432	17 512	154 272	155 918	2 881	24 310	77 345	5 470	1 908	439 616
Quarterly																
2002 Q1	50 871	1 204	30 075	12	5 409	5 236	92 807	4 037	32 658	45 805	556	4 812	17 103	1 158	670	106 799
Q2	52 712	1 332	29 977	−126	6 067	5 437	95 399	3 933	33 908	28 544	607	5 172	15 142	1 187	512	89 005
Q3	53 264	1 360	30 500	−375	6 845	4 631	96 225	4 099	35 794	35 492	619	5 221	15 278	1 230	743	98 476
Q4	53 807	1 370	32 736	−50	5 897	6 230	99 990	4 209	35 968	32 875	599	5 155	15 887	1 277	501	96 471
2003 Q1	56 276	1 207	30 829	−75	7 227	5 321	100 785	4 217	34 044	46 210	545	5 204	17 222	1 243	661	109 346
Q2	57 925	2 044	31 540	−185	7 388	5 813	104 525	4 118	36 439	29 368	606	5 686	17 670	1 169	484	95 540
Q3	58 272	1 461	32 810	−295	6 709	5 398	104 355	4 269	36 514	36 110	631	5 823	18 245	1 173	491	103 256
Q4	59 070	1 531	35 129	−300	7 456	6 189	109 075	4 689	38 762	32 333	634	5 842	18 403	1 251	487	102 401
2004 Q1	60 282	1 489	32 922	−222	8 197	5 465	108 133	4 443	36 806	47 567	650	5 850	20 830	1 260	487	117 893
Q2	60 702	1 848	34 103	−187	7 275	5 680	109 421	4 130	38 359	32 050	731	6 115	18 284	1 348	484	101 501
Q3	61 831	1 567	34 551	−36	8 305	5 799	112 017	4 193	38 727	39 641	759	6 214	18 836	1 397	469	110 236
Q4	63 107	1 875	36 986	17	7 207	6 669	115 861	4 746	40 380	36 660	741	6 131	19 395	1 465	468	109 986
2005 Q1	63 897	1 932	33 891	−374	9 103	6 441	114 890	4 460	37 361	54 710	713	6 172	21 763	1 452	465	127 096
Q2	65 022	1 577	35 816	71	7 189	6 519	116 194	4 174	39 541	35 244	804	6 528	19 410	1 287	445	107 433

Sources: Office for National Statistics;
Enquiries 020 7533 5987

6.5 Public sector key fiscal indicators[1]

£ million[5], not seasonally adjusted

| | Surplus on current budget[2] | | Net investment[3] | | Net borrowing[4] | | Net cash requirement | | Public sector net debt | |
	General Government	Public Sector	General Government	Public Sector	General Government	Public Sector	General Government	Public Sector	£ billion[6]	% of GDP[7]
Annual										
	ANLW	ANMU	-ANNV	-ANNW	NNBK	ANNX	RUUS	RURQ	RUTN	RUTO
2002	−5 100	−7 365	10 752	9 972	−15 852	−17 337	16 421	18 227	345.2	32.1
2003	−20 694	−22 422	15 037	14 489	−35 731	−36 911	38 214	38 965	376.9	33.2
2004	−19 575	−21 079	16 708	15 664	−36 726	−36 743	41 337†	41 284	419.0	35.3
Quarterly										
2002 Q1	11 257	10 703	4 891	4 713	6 366	5 990	−6 383	−6 323	311.7	30.1
Q2	−9 200	−9 763	1 068	785	−10 268	−10 548	7 126	7 069	318.7	30.4
Q3	−764	−1 179	2 618	2 224	−3 382	−3 403	−145	402	321.8	30.3
Q4	−6 393	−7 126	2 175	2 250	−8 568	−9 376	15 823	17 079	345.2	32.1
2003 Q1	5 806	4 956	5 942	6 285	−136	−1 329	−1 305	−413	342.4	31.4
Q2	−12 006	−12 493	2 015	1 613	−14 021	−14 106	16 404	16 286	350.8	31.7
Q3	−4 285	−4 624	3 444	3 200	−7 729	−7 824	6 036	5 923	356.1	31.8
Q4	−10 209	−10 261	3 636	3 391	−13 845	−13 652	17 079	17 169	376.9	33.2
2004 Q1	6 542	6 122	5 515	5 430	1 027	692	506†	115	377.3	32.8
Q2	−11 223	−11 797	2 931	2 588	−14 351	−14 385	11 518	11 655	390.2	33.5
Q3	−5 173	−5 850	3 695	3 316	−9 222	−9 166	6 966	7 335	396.4	33.7
Q4	−9 721	−9 554	4 567	4 330	−14 180	−13 884	22 347	22 179	419.0	35.3
2005 Q1	8 752	8 315	8 367	8 710	284	−395	−2 094	−2 568	416.7	34.6
Q2	−11 906	−12 745	3 157	2 820	−15 234	−15 565	15 438	16 712	432.5	35.5
Q3	..	−1 841	..	5 456	−7 649	−7 297	8 354	8 209	440.0	35.5

1 National accounts entities as defined under the European System of Accounts 1995 (ESA95).
2 Net saving, plus capital taxes.
3 Gross capital formation, plus payments less receipts, of investment grants less depreciation.
4 Net borrowing = surplus on current budget minus net investment.
5 Unless otherwise stated
6 Net amount outstanding at end of period.
7 Net debt at end of the month, Gross domestic product at market prices for 12 months centred on the end of the month.

Sources: Office for National Statistics;
Enquiries 020 7533 5984

Public sector finances

£ billion
not seasonally
adjusted

Current
receipt

Current
expenditure

Net
borrowing

2000/2001   2001/2002   2002/2003   2003/2004   2004/2005   2005/2006
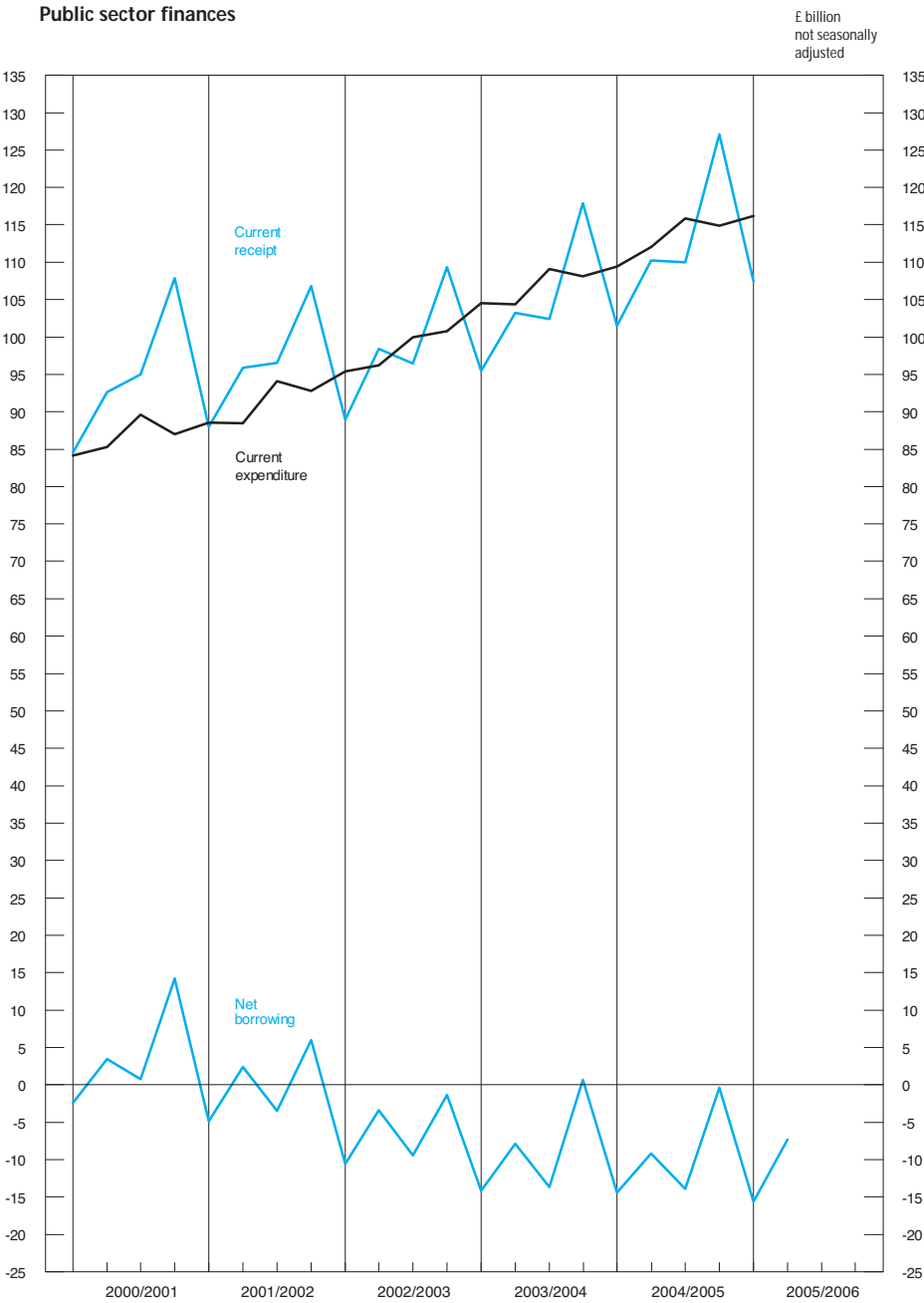
6.6 Consumer credit and other household sector borrowing

£ million

		Consumer credit							
		of which			Building Societies'	Other specialist		Insurance	Loans secured on dwellings
	Total consumer credit	credit cards[2]	other[2]	Banks	Class 3 Loans	lenders	Retailers	companies	(NSA[1])
Amounts outstanding: quarterly									
	VZRI	VZRJ	VZRK	VRVV	VZRG	VZRH	RLBO	VZQZ	AMWT
2000 Q1	119 280	33 450	85 870	86 029†	315	28 852	2 663	1 415	503 376
Q2	122 010	34 930	87 106	88 720	315	28 937	2 613	1 310	514 638
Q3	124 317†	36 290	88 063	91 039	349	29 130	2 555†	1 273	525 523
Q4	127 329	37 620	89 585	94 313	392	29 009	2 503	1 197	535 391
2001 Q1	129 068	38 009	91 127	95 812	412	29 122	2 523	1 229	546 179
Q2	132 927	39 416	93 517	100 285	424	28 329	2 509	1 221	561 121
Q3	136 046	40 001	96 048	103 451	447	28 473	2 522	1 206	576 957
Q4	140 984	41 758	99 175	107 849	436	29 103	2 478	1 178	591 152
2002 Q1	144 262	43 396	100 930	110 985	463	29 191	2 505	1 183	606 222
Q2	147 173	43 429	103 743†	113 135	460	29 630	2 574	1 193	625 670
Q3	153 010	45 957	107 007	118 383	523	30 414	2 561	1 196	652 553
Q4	157 124	47 246	109 890	121 003	610	31 833	2 532	1 182	675 180
2003 Q1	156 480	43 798	112 665	116 730	625	35 664	2 522	1 033	695 615
Q2	161 135	45 788	115 300	119 667	672	37 427	2 220	933	718 271
Q3	164 397	47 632	116 725	121 946	736	38 778	2 167	824	746 267
Q4	166 398	47 760	118 755	122 890	766	39 971	2 144	701	774 548
2004 Q1	170 180	48 970	121 165	127 063	751	39 685	2 072	690	798 753
Q2	174 539	50 440	124 050	130 760	777	40 077	2 040	698	826 107
Q3	178 392	51 754	126 630	134 006	836	40 901	1 989	676	853 731
Q4	182 254	53 696	128 656	137 289	904	41 570	1 936	661	876 879
2005 Q1	186 626	55 219	131 353	140 383	949	42 818†	1 867	651	892 817
Q2	189 216	55 791	133 370	141 669	980	43 970	1 811	642	916 638
Q3	190 689	56 017	134 712	141 840	1 068	45 358	1 772	629	..
Amounts outstanding: monthly									
2003 Jan	157 707†	47 483†	110 224†	121 302†	601	32 033	2 542	1 143	..
Feb	154 713	43 611	111 102	119 902	617	30 348	2 539†	1 089	..
Mar	156 100	43 673	112 427	116 312	633†	35 462	2 511	1 033	..
Apr	157 440	44 151	113 289	116 896	658	36 549	2 492	990	..
May	159 226	45 019	114 207	118 219	657	36 706	2 471	959	..
Jun	160 738	45 640	115 099	119 310	684	37 534	2 214	933	..
Jul	162 213	46 321	115 893	120 836	698	37 697	2 198	904	..
Aug	163 370	46 900	116 469	121 747	714	37 677	2 194	868	..
Sep	164 187	47 620	116 567	121 746	726	38 821	2 158	824	..
Oct	165 610	48 061	117 549	122 053	733	39 884	2 153	776	..
Nov	166 178	47 904	118 274	122 742	731	40 128	2 152	732	..
Dec	166 195	47 535	118 660	122 757	739	39 994	2 140	701	..
2004 Jan	167 540	48 106	119 434	125 407	747	38 524	2 090	686	..
Feb	169 150	48 538	120 612	126 821	753	38 831	2 040	684	..
Mar	169 927	48 865	121 061	126 955	759	39 491	2 065	690	..
Apr	171 533	49 805	121 727	128 497	770	39 534	2 064	697	..
May	172 475	49 861	122 615	129 110	785	39 794	2 039	700	..
Jun	174 252	50 292	123 960	130 701	788	40 208	2 034	698	..
Jul	176 080	51 367	124 713	132 157	801	40 353	2 021	692	..
Aug	177 227	51 462	125 765	132 650	809	40 772	1 989	684	..
Sep	178 280	51 699	126 581	134 026	824	40 991	1 980	676	..
Oct	179 632	52 345	127 287	135 401	835	41 000	1 969	669	..
Nov	181 249	53 017	128 232	136 537	851	41 526	1 947	664	..
Dec	182 115	53 454	128 661	137 093	877	41 498	1 932	661	..
2005 Jan	184 008	54 345	129 663	138 494	894	41 755	1 909	658	..
Feb	185 304	54 868	130 435	139 388	913	42 128	1 882	655	..
Mar	186 407	55 118	131 289	140 437	961	42 668	1 860	651	..
Apr	186 926	54 963	131 963	140 653	942	42 936	1 834	648	..
May	188 189	55 498	132 691	141 489	966	43 129	1 821	645	..
Jun	188 933	55 656	133 277	141 714	993	44 099	1 805	642	..
Jul	189 631	55 828	133 803	142 092	1 031	44 152	1 786	638	..
Aug	190 445	56 123	134 322	142 216	1 050	44 419	1 785	634	..
Sep	190 645	55 890	134 755	141 704	1 056	45 480†	1 763	629	..
Oct	191 406	56 334	135 072	141 228	1 079	46 636	1 742	624	..

1 These figures fall outside the scope of National Statistics.
2 From January 1999 onwards, a more accurate breakdown between credit card and 'other lending' is available.

Credit card lending by other specialist lenders can now be separately identified and is included within the credit card component. Hence, data from January 1999 onwards are not directly comparable with earlier periods.
Source: Office for National Statistics; Enquiries Columns 1- 8 01633 812782

Consumer credit and other Household sector borrowing

Percentage change on year earlier

Consumer credit: amounts outstanding

£ million

Legend:
- 2004 Q3
- 2004 Q4
- 2005 Q1
- 2005 Q2
- 2005Q3

Banks   Other specialist lenders   *Other
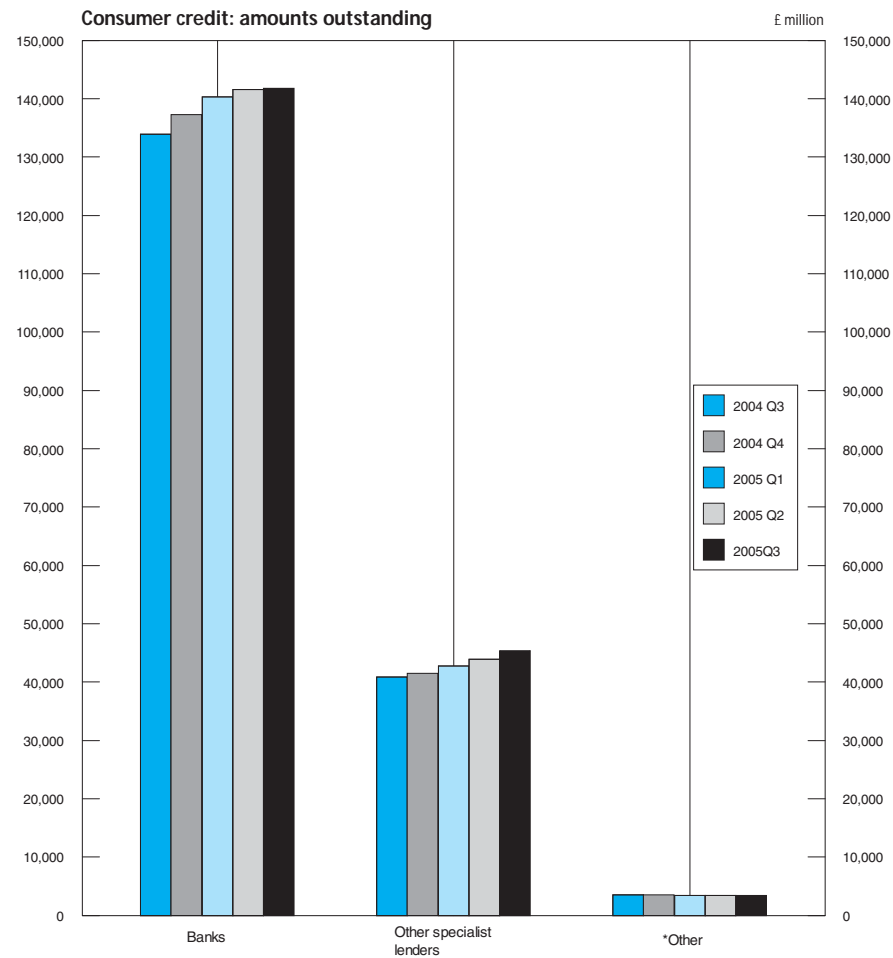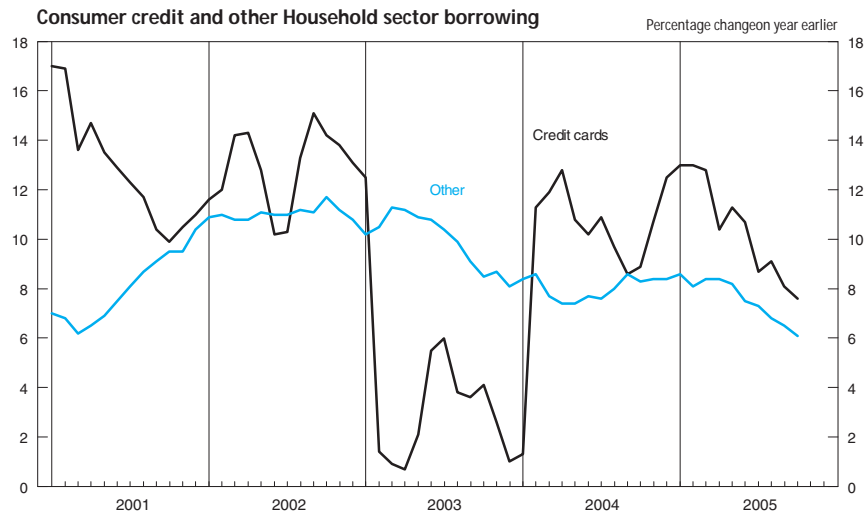
*Other is the sum of Retailers, Insurance companies and Building society class 3 loans

6.7 Analysis of bank lending to UK residents[1,3]
Amounts outstanding

£ million, not seasonally adjusted

	Manufacturing[2]	Other production	Financial	Services	Individuals	Total loans, advances and acceptances
Total Loans, Advances, Acceptances and Sterling Commercial paper						
	TBSF	BCEX	BCFH	BCFR	TBTW	TBSA
2004 Q3	41 789	34 098	465 256	269 605	651 188	1 461 936
Q4	41 315	33 801	472 690	276 838	667 615	1 492 258
2005 Q1	41 160	36 157	490 834	280 212	667 560	1 515 924
Q2	43 892	40 642	497 342	296 820	674 527	1 553 222
Q3	44 538	41 118	501 576	307 164	690 034	1 584 430
Of which in sterling						
	TBUF	BCEY	BCFI	BCFS	TBVW	TBUA
2004 Q3	29 527	31 346	239 330	251 547	650 440	1 202 189
Q4	29 102	30 870	244 248	258 166	666 816	1 229 202
2005 Q1	29 449	32 943	243 283	261 800	666 693	1 234 167
Q2	30 466	36 853	250 928	277 027	673 685	1 268 959
Q3	31 060	37 571	260 562	284 904	688 891	1 302 988
Changes in total lending (sterling)						
	TBWF	BCEZ	BCFJ	BCFT	TBXW	TBWA
2004 Q3	−700	767	12 657	12 797	16 055	41 576
Q4	−424	−476	5 318	7 083	16 490	27 991
2005 Q1	346	2 073	−3 039	3 634	2 351	5 366
Q2	1 286	3 934	11 815[†]	15 836[†]	8 498[†]	41 368[†]
Q3	594	718	9 634	7 985	16 805	35 736
Changes in total lending (foreign currencies)						
	TBYF	BCFA	BCFK	BCFU	TBZW	TBYA
2004 Q3	−38	−53	−10 122	1 646	98	−8 469
Q4	50	230	5 208	1 024	64	6 577
2005 Q1	−383	296	21 428	−109	75	21 307
Q2	1 488	517	−4 193[†]	1 096	−42	−1 133[†]
Q3	−116	−288	−8 209	2 249	292	−6 072
Facilities granted						
	TCAF	BCFB	BCFL	BCFV	TCBW	TCAA
2004 Q3	80 535	65 844	525 645	375 653	739 016	1 786 692
Q4	80 540	67 658	532 527	387 539	754 796	1 823 061
2005 Q1	81 867	69 892	548 170	392 545	754 636	1 847 111
Q2	85 566	73 995	556 152	414 086	762 234	1 892 032
Q3	83 725	75 039	565 972	423 447	783 300	1 931 483
Of which in sterling						
	TCCF	BCFC	BCFM	BCFW	TCDW	TCCA
2004 Q3	51 222	52 027	279 288	335 638	738 108	1 456 283
Q4	51 962	53 583	284 725	347 690	753 817	1 491 778
2005 Q1	53 207	54 301	281 433	351 154	753 604	1 493 699
Q2	53 016	57 660	286 974	369 675	761 217	1 528 542
Q3	51 667	58 242	300 733	375 679	781 965	1 568 286
Changes in sterling (facilities granted)						
	TCEF	BCFD	BCFN	BCFX	TCFW	TCEA
2004 Q3	−1 433	2 645	15 112	16 275	15 564	48 163
Q4	741	1 556	5 837	12 516	15 823	36 473
2005 Q1	1 244	718	−5 366	3 464	2 262	2 322
Q2	86	3 383	12 318[†]	19 155[†]	8 906[†]	43 847[†]
Q3	−1 349	582	13 759	6 112	22 347	41 451
Changes in foreign currencies (facilities granted)						
	TCGF	BCFE	BCFO	BCFY	TCHW	TCGA
2004 Q3	237	361	−8 606	1 601	52	−6 355
Q4	−69	704	4 803	983	85	6 506
2005 Q1	158	1 487	21 216	1 621	60	24 543
Q2	3 022	194	644	1 884	−35	5 709
Q3	−898	244	−7 010	2 812	306	−4 546

1 Comprises loans advances (including under reverse repos), finance leasing, acceptances, facilities and holdings of sterling commercial paper issued by UK residents, provided by reporting banks to their UK resident non-bank and non-building society customers. This analysis is based on Standard Industrial Classification of 1992 and excludes lending to residents in the Channel Islands and the Isle of Man which are classified as non-residents for statistical purposes from end-September 1997. Holdings of investments and bills and adjustments for transit items are no longer included. For a more detailed breakdown of these data, see *Financial Statistics* Table 4.5B.

2 Includes lending under DTI special scheme for domestic shipbuilding.
3 These figures fall outside the scope of National Statistics.

Source: Bank of England; Enquiries 020 7601 5360

Analysis of bank lending to UK residents: Total Loans, Advances, Acceptances and Sterling Commercial Paper

£ million

Change (+) = Increase in levels outstanding

Change (-) = Net repayment

2004 Q3	
2004 Q4	
2005 Q1	
2005 Q2	
2005 Q3	

Manufacturing   Other production   Financial   Services   Persons
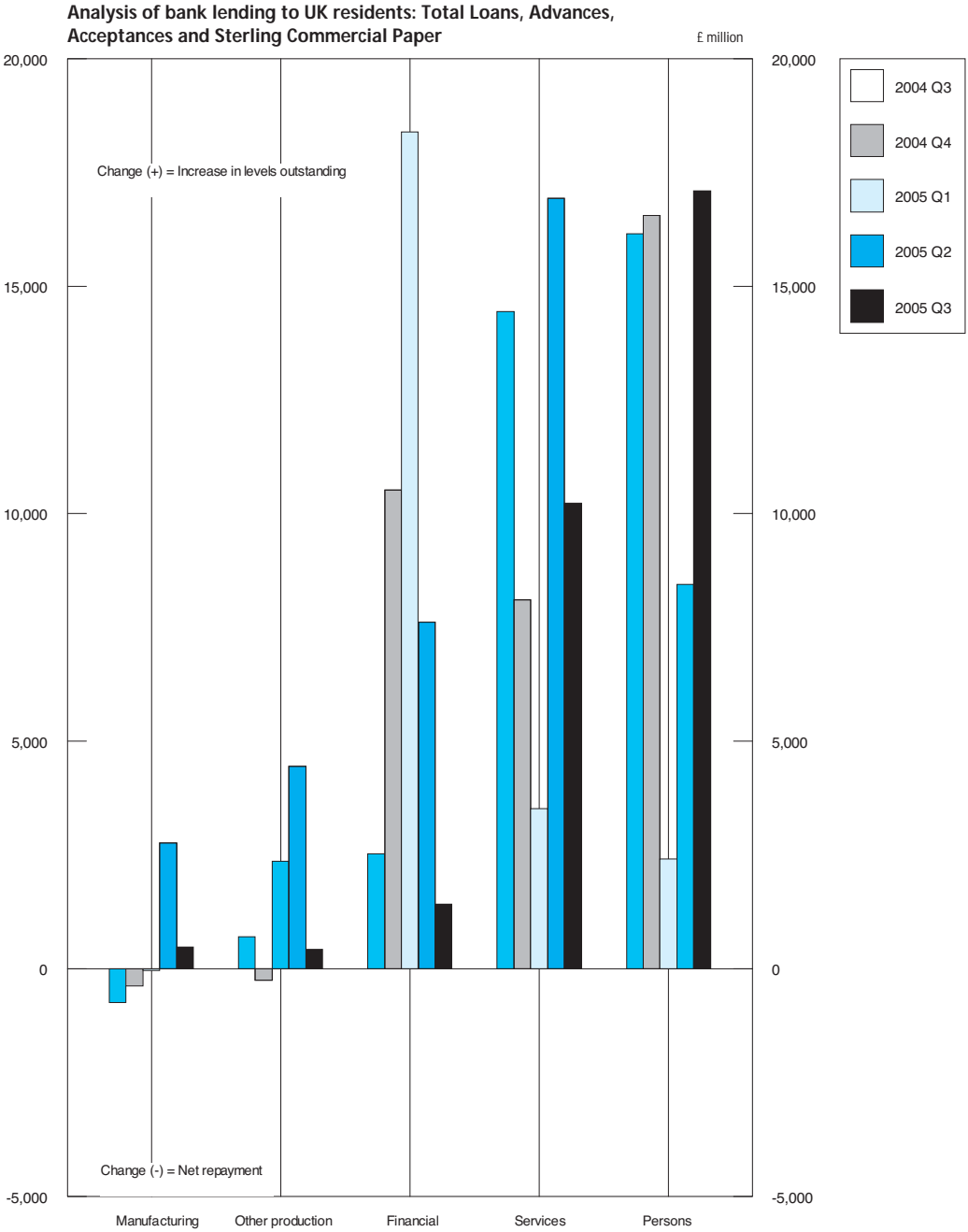
6.8 Interest rates and yields[4]

Percentage rate

	Last Friday					Selected retail banks: base rate	Last working day	Average of working days
	Treasury bill yield[1]	Inter-bank 3 months bid rate[3]	Inter-bank 3 months offer rate[2]	Sterling certif-icates of deposit 3 months bid rate	Sterling certif-icates of deposit 3 months offer rate		Euro-dollar 3 month rate	British govern-ment securities: long dated[3] - 20 years
Annual								
	AJRP	HSAJ	HSAK	HSAL	HSAM	ZCMG	AJIB	AJLX
2002	3.92	3.94	3.96	3.90	3.94	..	1.35	4.83
2003	3.90	3.95	3.98	3.95	3.98	..	1.10	4.64
2004	4.75	4.81	4.84	4.78	4.82	..	2.56	4.77
Monthly								
2002 Jan	3.90	3.97	4.03	3.97	3.99	4.00	1.86	4.81
Feb	3.91	3.97	4.00	3.91	3.95	4.00	1.85	4.83
Mar	4.04	4.09	4.16	4.09	4.11	4.00	2.00	5.11
Apr	3.98	4.06	4.13	4.05	4.06	4.00	1.86	5.13
May	4.04	4.09	4.13	4.09	4.11	4.00	1.82	5.18
Jun	3.97	4.06	4.09	4.05	4.07	4.00	1.83	5.02
Jul	3.75	3.94	3.97	3.92	3.94	4.00	1.75	4.90
Aug	3.86	3.91	3.97	3.91	3.93	4.00	1.80	4.64
Sep	3.81	3.88	3.91	3.85	3.86	4.00	1.74	4.45
Oct	3.73	3.88	3.91	3.85	3.87	4.00	1.64	4.59
Nov	3.86	3.94	3.98	3.94	3.95	4.00	1.42	4.64
Dec	3.92	3.94	3.96	3.90	3.94	4.00	1.35	4.62
2003 Jan	3.79	3.88	3.91	3.88	3.89	4.00	1.29	4.44
Feb	3.49	3.59	3.64	3.60	3.62	3.75	1.30	4.39
Mar	3.51	3.57	3.61	3.57	3.59	3.75	1.25	4.54
Apr	3.47	3.55	3.58	3.54	3.56	3.75	1.28	4.67
May	3.44	3.54	3.57	3.55	3.55	3.75	1.22	4.46
Jun	3.50	3.55	3.59	3.55	3.56	3.75	1.09	4.39
Jul	3.32	3.36	3.40	3.36	3.38	3.50	1.06	4.65
Aug	3.53	3.54	3.57	3.54	3.56	3.50	1.11	4.68
Sep	3.59	3.66	3.67	3.63	3.65	3.50	1.13	4.76
Oct	3.81	3.86	3.90	3.85	3.87	3.50	1.13	4.88
Nov	3.86	3.90	3.94	3.90	3.92	3.75	1.12	4.95
Dec	3.90	3.95	3.98	3.95	3.98	3.75	1.10	4.83
2004 Jan	4.00	4.05	4.10	4.06	4.08	3.75	1.08	4.75
Feb	4.11	4.11	4.16	4.12	4.14	4.00	1.07	4.78
Mar	4.24	4.30	4.33	4.30	4.32	4.00	1.05	4.67
Apr	4.31	4.35	4.39	4.35	4.37	4.00	1.11	4.87
May	4.54	4.56	4.59	4.55	4.59	4.25	1.24	4.98
Jun	4.65	4.77	4.79	4.74	4.78	4.50	1.56	5.00
Jul	4.80	4.86	4.89	4.87	4.88	4.50	1.64	4.92
Aug	4.77	4.88	4.90	4.88	4.90	4.75	1.78	4.81
Sep	4.73	4.82	4.86	4.83	4.85	4.75	1.98	4.76
Oct	4.73	4.81	4.84	4.82	4.84	4.75	2.14	4.68
Nov	4.69	4.77	4.80	4.76	4.80	4.75	2.38	4.58
Dec	4.75	4.81	4.84	4.78	4.82	4.75	2.56	4.44
2005 Jan	4.71	4.79	4.81	4.77	4.81	4.75	2.75	4.44
Feb	4.79	4.87	4.90	4.86	4.90	4.75	2.90	4.53
Mar	4.82	4.90	4.93	4.88	4.92	4.75	3.04	4.74
Apr	4.75	4.86	4.88	4.85	4.89	4.75	3.18	4.60
May	4.70	4.79	4.81	4.78	4.82	4.75	3.31	4.41
Jun	4.57	4.69	4.73	4.69	4.73	4.75	3.51	4.29
Jul	4.48	4.54	4.56	4.53	4.57	4.75	3.67	4.33
Aug	4.43	4.52	4.54	4.51	4.55	4.50	3.84	4.34
Sep	4.45	4.52	4.55	4.52	4.56	4.50	4.07	4.26
Oct	4.47	4.54	4.56	4.53	4.57	4.50	4.24	4.36

1 Average discount rate expressed as the rate at which interest is earned dur-ing the life of the bills.
2 Spread of rates over the day in the inter-bank sterling market; from June 1982 rates are the spread at 10.30 am.

3 Averages of Wednesdays until February 1980; from March 1980 figures are the average of all observations (3 a week); from January 1982 average of working days. Calculated gross redemption yields - see *Financial Statistics Explanatory Handbook*.
4 These figures fall outside the scope of National Statistics.

Sources: Bank of England;
Enquiries 020 7601 4342.

Interest rates, and security yields

Percentage rate

Euro-dollar
3 month rate

Inter-bank
3 month
offer rate

Inter-bank
3 month
bid rate

Long dated
government
securities

2000   2001   2002   2003   2004   2005
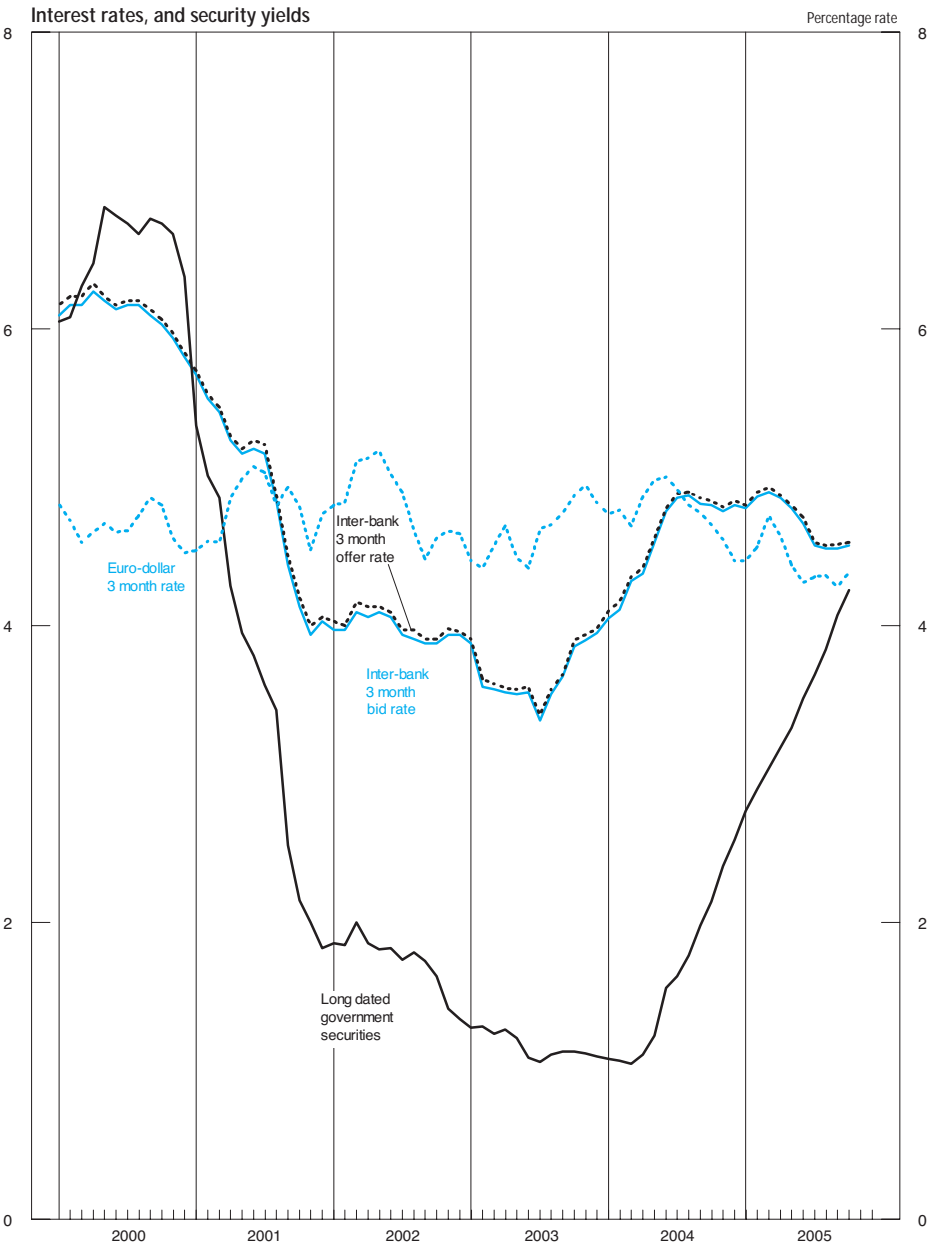
6.9 A selection of asset prices

Not seasonally adjusted

	Producer price indices (2000 = 100)		Housing:ODPM all lenders mix adjusted house price index (2002 = 100)			
	Plant and machinery bought as fixed assets by	Manufactured output				Average price of agricultural land in England (1995 = 100)[2]
	Motor vehicle industry	Motor vehicle industry	New dwellings[1]	Secondhand dwellings[1]	All dwellings[1]	
Annual						
	PVJL	PQIR	WMPN	WMPP	WMPQ	BAJI
2001	102.0	95.4	90.3	95.7	95.1	155
2002	100.2	95.2	108.7	111.6	111.2	144
2003	99.5	94.6	126.4	129.0	128.7	147
2004	98.9	96.1	138.6	144.6	143.9	162
Quarterly						
2001 Q1	102.9	95.4	90.8	92.1	92.1	156[3]
Q2	103.1	95.5	90.8	96.0	95.4	148[3]
Q3	101.2	95.4	94.1	99.4	98.8	160[3]
Q4	101.1	95.4	95.4	96.9	96.8	154[3]
2002 Q1	101.0	95.6	100.0	100.0	100.0	130[3]
Q2	100.5	95.5	106.5	108.4	108.2	139[3]
Q3	100.0	94.9	111.0	116.1	115.5	152[3]
Q4	99.2	94.9	117.1	121.8	121.3	148[3]
2003 Q1	99.1	94.6	119.3	124.0	123.4	136[3]
Q2	99.7	94.1	127.2	127.3	127.2	146[3]
Q3	99.9	94.5	127.9	131.1	130.7	168[3]
Q4	99.5	95.1	131.8	133.7	133.4	142[3]
2004 Q1	98.8	95.5	130.8	135.2	134.6	158[3]
Q2	99.3	96.2	137.8	143.1	142.5	157[3]
Q3	98.9	96.3	143.1	149.6	148.9	174[3]
Q4	98.8	96.5	142.6	150.7	149.8	160[3]
2005 Q1	99.2	96.9	145.1	150.1	149.5	..
Q2	99.0r	97.0	146.5	151.6	150.9	..
Q3	99.6p[†]	97.5p	149.1	154.5	153.8	..
Monthly						
2004 Jan	98.8	95.0	131.5	136.0	135.4	..
Feb	98.2	95.4	129.4	134.7	134.1	..
Mar	99.3	96.2	131.6	134.8	134.4	..
Apr	99.1	96.3	135.9	141.1	140.5	..
May	99.5	96.3	136.7	142.9	142.2	..
Jun	99.2	95.9	140.9	145.3	144.7	..
Jul	98.8	96.2	142.5	148.5	147.8	..
Aug	98.9	96.3	142.3	150.4	149.5	..
Sep	99.1	96.3	144.5	149.9	149.2	..
Oct	98.9	96.5	144.4	151.1	150.3	..
Nov	99.1	96.5	143.0	150.9	150.1	..
Dec	98.4	96.5	140.4	150.1	149.0	..
2005 Jan	98.9	96.6	143.9	149.6	148.9	..
Feb	99.4	96.9	144.0	148.7	148.1	..
Mar	99.2	97.1	147.4	151.9	151.3	..
Apr	98.9r[†]	96.9	144.6	150.8	150.1	..
May	99.2	97.1	146.9	151.3	150.8	..
Jun	98.9	97.1	148.0	152.6	152.0	..
Jul	99.9p	97.4p	149.7	154.3	153.7	..
Aug	99.5p	97.4p	148.8	154.4	153.7	..
Sep	99.5p	97.6p	148.8	154.8	154.1	..
Oct	99.6p	97.6p	..	..	..	..

1 Series based on mortgage lending by all financial institutions rather than building societies only, as previously published. This change has been made necessary because of the mergers, takeovers and conversions to plc status affecting the building society sector. The series is based on the Office of the Deputy Prime Ministers' 5% survey of mortgage lenders (at completion stage), but now includes all mortgage lenders rather than building societies only. From February 2002, monthly data has been obtained from the enlarged survey and quarterly data from 2002q2 are based on monthly indices. From September 2005, figures are based on the new Regulated Mortgage Survey (CML/BankSearch).

2 Please note that because of some changes in coverage, the revised series from Q1 1993 is not directly comparable with the old series. From Q1 1993 prices of all sales of agricultural land exclude some transfers in order to come closer to estimates of market determined prices. However the new series does not represent exactly competitive open market values. Sales are now analysed and recorded on the basis of when the transactions actually took place. Further information is available on the DEFRA Website (www.statistics.defra.gov.uk/esg/default.htm) accessible through the internet. Data prior to 1993 remains on the previous basis.

3 Provisional estimates.

Sources: Office for National Statistics, Enquiries Columns 1-2 01633 812106; Office of the Deputy Prime Minister, Enquiries Columns 3-5 020 7944 3325; Department of Environment, Food and Rural Affairs; Enquiries Column 6 01904 455326

Measures of variability of selected economic time series[1]

			Average percentage changes				MCD or QCD	$\bar{I}/\bar{C}$ for MCD (or QCD) span
	Table	Period covered	$\overline{CI}$	$\bar{I}$	$\bar{C}$	$\bar{I}/\bar{C}$		
Quarterly series								
National income and components:								
chained volume measures, reference year 2002								
Gross Value Added (GVA) at Basic Prices	2.1	Q1 1990 to Q2 2005	0.6	0.1	0.6	0.2	1	0.2
Households' Final Consumption Expenditure	2.5	Q1 1990 to Q2 2005	0.8	0.3	0.7	0.4	1	0.4
Gross fixed capital formation	2.2, 2.7	Q1 1990 to Q2 2005	1.6	0.8	1.3	0.6	1	0.6
Exports: goods and services	2.2	Q1 1990 to Q2 2005	2.0	1.0	1.4	0.7	1	0.7
Imports: goods and services	2.2	Q1 1990 to Q2 2005	1.9	0.9	1.6	0.6	1	0.6
Real Households' disposable income	2.5	Q1 1990 to Q2 2005	1.0	0.8	0.7	1.1	2	0.4
current prices								
Gross operating surplus of private								
non-financial corporations	2.11	Q1 1990 to Q2 2005	2.6	1.8	1.6	1.1	2	0.4
Other quarterly series								
Construction output	5.2	Q1 1990 to Q2 2005	1.2	0.8	0.8	0.9	1	0.9
Households' saving ratio[3]	2.5	Q1 1990 to Q2 2005	0.9	0.7	0.5	1.5	2	0.4
Monthly series								
Retail sales (volume per week)								
Predominantly food stores	5.8	Jan 1990 to Jun 2005	0.6	0.6	0.2	2.4	3	0.8
Predominantly non-food stores	5.8	Jan 1990 to Jun 2005	1.0	0.9	0.4	2.4	3	0.7
Non-store and repair	5.8	Jan 1990 to Jun 2005	2.1	2.0	0.5	3.7	4	0.9
Index of industrial production								
Production industries	5.1	Jan 1990 to Jun 2005	0.6	0.6	0.2	2.9	4	0.8
Manufacturing industries	5.1	Jan 1990 to Jun 2005	0.6	0.5	0.2	2.4	3	0.8
Average earnings: whole economy	4.6	Jan 1990 to Jun 2005	0.5	0.3	0.4	0.8	1	0.8
Exports: value, f.o.b.[4]	2.13	Jan 1990 to Jun 2005	2.8	2.6	0.7	3.6	4	0.9
Imports: value, f.o.b.[4]	2.13	Jan 1990 to Jun 2005	2.2	2.1	0.7	3.0	3	0.9
Money stock - M0[5]	6.2	Jan 1990 to Jun 2005	0.6	0.3	0.5	0.6	1	0.6
Money stock - M4[5]	6.2	Jan 1990 to Jun 2005	0.7	0.3	0.6	0.5	1	0.5

1 For a fuller description of these measures see article 'Measuring variability in economic time series' in *Economic Trends*, No 226, August 1972.
The following are brief definitions of the measures.
$\overline{CI}$ is the average month to month (quarter to quarter for quarterly series) percentage change without regard to sign in the seasonally adjusted series.
$\bar{C}$ is the same for the trend component.
$\bar{I}$ is the same for the irregular component, obtained by dividing the trend component into the seasonally adjusted series, except for those series which are seasonally adjusted using an additive model, see footnotes 3 and 5.
$\bar{I}/\bar{C}$ is therefore a measure of the size of the relative irregularity of the seasonally adjusted series.
The average changes $\bar{I}$ and $\bar{C}$ can also be computed successively over spans of increasing numbers of months (quarters). MCD (QCD), months (quarters) for cyclical dominance, is the shortest span of months (quarters) for which $\bar{I}/\bar{C}$ is less than 1 and therefore represents the minimum period over which changes in the trend, on average, exceed the irregular movement.
MCD cannot exceed 6 even if $\bar{I}/\bar{C}$ exceeds 1 for 6-month periods.

2 Series relate to Great Britain.
3 The figures in the tables were obtained from an additive analysis of the households' saving ratio so $\overline{CI}$, $\bar{I}$ and $\bar{C}$ are differences in percentage points.
4 The figures have been updated as described in an article in *Economic Trends*, No 320, June 1980.
5 As the irregular component for M0 and M4 is obtained by subtraction of the trend rather than by division, the figures for $\overline{CI}$, $\bar{I}$ and $\bar{C}$ are expressed as percentages of the trend level in the preceding month.

Source: Office for National Statistics: Enquiries 020 7533 6243

Index of sources

Abbreviations

DEFRA – Department for Environment, Food and Rural Affairs.

ODPM – Office of the Deputy Prime Minister.

	Table	Source	Further statistics (where available)
Asset prices	6.9	Office for National Statistics DEFRA ODPM	
Average earnings	1.1, 4.6	Office for National Statistics	First Release Labour Market Trends Monthly Digest of Statistics
Balance of payments (current account)	2.13	Office for National Statistics	First Release Financial Statistics UK Economic Accounts
Banking		Bank of England	Financial Statistics
Banking loans, advances and acceptances	6.7		
British government sucurities (long dated)	6.8	Bank of England	
20 years yield			
Capital account summary, analysis by sector	2.10	Office for National Statistics	
Cars (see also Motor Vehicles)			
Production	1.1, 5.3	Office for National Statistics	News Release
Registration	5.8	Department of Transport	
Change in inventories			
By industry	5.6	Office for National Statistics	First Release
Manufacturing	1.1		Monthly Digest of Statistics
Ratios	5.7		
Total	2.2		
Claimant count (see Unemployment)			
Coal (see also Energy)	5.9	Department of Trade and Industry	Energy Trends
Consumer prices index	1.1, 3.1	Office for National Statistics	First Release Focus on consumer price indices Labour Market Trends
Commercial vehicles, production (see also Motor vehicles)	5.3	Office for National Statistics	News Release
Construction industry			
Index of output (see also)			
Industrial production)	1.1, 2.8	Office for National Statistics	
Orders received	5.2, 5.4	Department of Trade and Industry	Construction Statistics
Output	5.2	Department of Trade and Industry	
Corporations		Office for National Statistics	
Financial corporations			Financial Statistics
Capital transfers	2.10		UK Economic Accounts
Gross saving	2.10		
In relation to gross domestic product	2.3		Monthly Digest of Statistics
Non-financial corporations			First Release
Allocation of primary income account	2.11		Financial Statistics
Capital account, net lending/net borrowing	2.12		UK Economic Accounts
Gross operating surplus	2.11		
Gross saving	2.10		
Property income received/paid	2.11		
Resources	2.11, 2.12		
Secondary distribution of income account	2.12		
Uses	2.11, 2.12	Office for National Statistics	
Consumer credit	5.8, 6.6	Office for National Statistics	Consumer Trends Financial Statistics
Counterparts to changes in money stock M4	6.3	Bank of England	Financial Statistics Press Notice

United Kingdom macro-economic statistics

Published by ONS

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Input-Output Analyses

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Share Ownership

UK Balance of Payments (Pink Book)

UK National Accounts (Blue Book)

First releases
- Share Ownership
- Foreign direct investment
- UK trade in services

Recent editions

Economic Trends Annual Supplement 2005
Palgrave Macmillan,
ISBN 1 4039 9542 7
Price £42.50
www.statistics.gov.uk/products/p311.asp

Quarterly publications

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Consumer Trends

Overseas Trade analysed in terms of industry

First releases
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- UK National Accounts
- UK Output, Income & Expenditure
- GDP Preliminary estimate
- Business investment
- Investment by insurance companies, pension funds and trusts
- Govt Deficit & Debt under the Treaty (bi-annual)
- Profitability of UK companies
- Productivity

Consumer Trends 2005 quarter 2
www.statistics.gov.uk/products/p242.asp

United Kingdom Economic Accounts: 2005 quarter 2. Palgrave Macmillan, ISBN 1 4039 9644 X. Price £27.
www.statistics.gov.uk/products/p1904.asp

UK Trade in Goods analysed in terms of industry (MQ10): 2005 quarter 3
www.statistics.gov.uk/products/p731.asp

Monthly publications

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Economic Trends

Producer Price Indices

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Monthly Review of External Trade Statistics

First releases
- UK Trade
- Public Sector Finances
- Consumer Price indices
- Producer Prices
- Retail Sales Index
- Index of Production
- Index of distribution

Financial Statistics: November 2005. Palgrave Macmillan, ISBN 1 4039 9544 7. Price £40.

Focus on Consumer Price Indices: October 2005.
www.statistics.gov.uk/products/p867.asp

Monthly review of External Trade Statistics (MM24): October 2005
www.statistics.gov.uk/products/p613.asp

Other publications
- Retail Prices 1914–1990 ■ Labour Market Trends ■ National Accounts Concepts Sources and Methods -
- Sector Classification Guide for the National Statistics